

## **Annual medical & sanitary report / Cyprus.**

### **Contributors**

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CYPRUS

ANNUAL  
MEDICAL & SANITARY REPORT  
1938

*PRICE THREE SHILLINGS*

NICOSIA

PRINTED AT THE CYPRUS GOVERNMENT PRINTING OFFICE

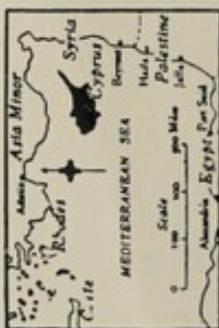
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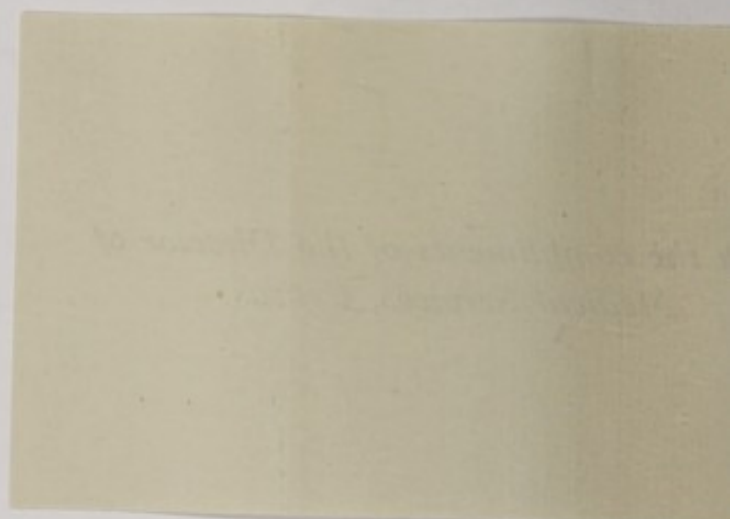
## REFERENCE

Asphalted roads .....  
Other Motorable roads .....  
District Boundary .....  
Heights in feet above Sea Level ..... 4659

## MEDICAL STATIONS

HOSPITALS

*With the compliments of the Director of  
Medical Services, Cyprus.*





CYPRUS

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ANNUAL  
MEDICAL & SANITARY REPORT

1938

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NICOSIA

PRINTED AT THE CYPRUS GOVERNMENT PRINTING OFFICE

1939

MEDICAL DEPARTMENT,

NICOSIA, CYPRUS,

31st August, 1939.

Sir,

*I have the honour to submit for the information of His Excellency the Governor, and for transmission to the Right Honourable the Secretary of State, the Medical Report on the Health and Sanitary Conditions of Cyprus, for the year 1938, together with the returns, etc., appended thereto.*

*2. I also desire to take this opportunity of again extending my thanks to the entire Medical Department Staff for their continued loyal support during the 12 months under review.*

*I have the honour to be,*

*Sir,*

*Your obedient Servant,*

E. A. NEFF,

*Director of Medical Services.*

*The Honourable  
The Colonial Secretary,  
Cyprus.*

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## CONTENTS

	PAGE
I.—ADMINISTRATION .. .. .	1
(A) General Remarks.. .. .	1
(B) Establishment .. .. .	4
(c) Legal .. .. .	5
(D) Financial .. .. .	5
(E) Medical Stores .. .. .	5
II.—PUBLIC HEALTH .. .. .	6
(A) General Remarks.. .. .	6
(B) Diseases .. .. .	6
Communicable Diseases .. .. .	6
(a) Insect-borne Diseases .. .. .	6
Return of Quinine issued by Government .. .. .	6
Return of Anti-Malarial Works carried out .. .. .	7
(b) Communicable Diseases other than at (a) and (c) .. .. .	7
Smallpox and Vaccinations .. .. .	7
Plague .. .. .	7
Pulmonary Tuberculosis.. .. .	7
Athlassa Sanatorium .. .. .	8
Philip Dispensary .. .. .	9
Dimitriou Dispensary .. .. .	10
Epidemic Meningococcal Meningitis .. .. .	10
Typhoid .. .. .	11
Bacillary Dysentery .. .. .	11
Diphtheria .. .. .	12
Trachoma .. .. .	12
Undulant Fever .. .. .	12
(c) Helminthic Diseases .. .. .	12
Schistosomiasis .. .. .	12
Ascaris .. .. .	12
Echinococcus-Hydatid .. .. .	12
Other Diseases .. .. .	12
Diagrams showing percentage of—	
(a) General Diseases .. .. .	13
(b) Communicable Diseases .. .. .	13
(c) Vital Statistics .. .. .	14
General Population .. .. .	14
Invaliding, etc., Table for European Officers .. .. .	14
Invaliding, etc., Table of Cypriot Officials .. .. .	14
III.—HYGIENE AND SANITATION .. .. .	15
(A) General Review of Work done and Progress made .. .. .	15
(i) Administration .. .. .	15
(ii) General Measures of Sanitation .. .. .	15
Sewage Disposal .. .. .	15
(iii) School Hygiene .. .. .	15
(iv) Industrial Hygiene .. .. .	15
(v) Housing and Town Planning .. .. .	15
(B) Measures taken to spread the Knowledge of Hygiene and Sanitation .. .. .	16
Health Exhibition .. .. .	16
School for Sanitary Inspectors .. .. .	16
Air-Raid Precautions .. .. .	16
Hotels.. .. .	16
Health Resorts .. .. .	16
Water Supplies .. .. .	16
IV.—PORT HEALTH WORK AND ADMINISTRATION .. .. .	17
V.—MATERNAL, CHILD WELFARE AND SOCIAL HYGIENE .. .. .	17
VI.—HOSPITAL AND DISPENSARIES .. .. .	18
Hospitals .. .. .	18
Mental Hospital .. .. .	18
Leper Farm .. .. .	18
Sanatorium .. .. .	19
Aided Hospitals .. .. .	19
Rural Hospitals .. .. .	19
Dental Service .. .. .	19
Eye Clinics .. .. .	20
Statement of the Amount of Work performed yearly .. .. .	20
Venereal Diseases Clinics .. .. .	21



	PAGE
VII.—CONTROL OF PROFESSIONAL PRACTICE .. .. .	21
(a) Medical Council .. .. .	21
(b) Medical Practitioners .. .. .	21
(c) Dental Practitioners .. .. .	21
(d) Druggists and Pharmacists .. .. .	21
(e) Control of Dangerous Drugs .. .. .	21
Table of Dangerous Drugs for which Licences to import were granted ..	22
VIII.—METEOROLOGY .. .. .	24
IX.—SCIENTIFIC .. .. .	24

## APPENDICES.

A.—Work of the Rockefeller Foundation in Cyprus [1.—Malaria Report. 2.—Engineering Report] .. .. .	25
B.—Report of the Specialist (Surgeon) .. .. .	37
C.—Report of the Government Pathologist .. .. .	42
D.—Report of the Government Chemist .. .. .	44
E.—Report of the Honorary Social Worker .. .. .	47
F.—Table showing Staff .. .. .	48
G.—Table showing Financial Details .. .. .	49
H.—Return of Diseases and Deaths .. .. .	50

# Annual Medical and Sanitary Report for the Year 1938.

## I. ADMINISTRATION.

### (A) GENERAL REMARKS.

The arrival of the new District Medical Officers from England early in the year made it possible to complete the approved scheme of reorganization utilizing these officers and those already on the Island. All six Districts were then placed in charge of a responsible officer and the work at Headquarters was thus substantially reduced.

*District Health and Medical Work.*—The administration of the six Districts has, as stated, been simplified and rendered more efficient through the appointment of District Medical Officers, but in addition the new District Medical and Health Divisions in which the Island is now divided, the increase in the Travelling Vote and extended itineraries of travel for Cypriot Medical Officers, have resulted in medical and health services being extended to a larger proportion of the population than has hitherto been possible.

The sanitary branch of the Department has been reorganized. Salaries for Health Inspectors will as a result be increased and 13 new Inspectors trained at the local Sanitary School will come into the service. The whole scheme, which has the approval of Government, it is hoped will be brought into effect during 1939.

### NUTRITION.

The Standing Committee of Nutrition of which the Director of Medical Services is Chairman has now completed its preliminary work and an interim report is about to be published. The investigations carried out by the Committee include—

- (1) The actual average diets of representative sections of the community, *i.e.*:
  - (a) small wage-earners in towns and industrial areas.
  - (b) Small farmers.
  - (c) Agricultural Labourers.
  - (d) School-children.
- (2) The assessment of the above diets in terms of Proteins, Fats, Carbohydrates, Calories and, as far as possible, Vitamin content.
- (3) Examination as to nutritive value and consumption of certain staple products such as meat, milk and dairy products, fruit and bread.
- (4) Chemical analysis of certain foodstuffs including local bread and olive-oil.
- (5) Exports and Imports of Foodstuffs and availability of local food.
- (6) The efficiency of agricultural labour in Cyprus.

The report outlines the practical measures already taken in Cyprus to improve nutrition. These include legislative measures, improvement to dairies, soup-kitchens established, child welfare centres, day nurseries, ante and post natal work, tuberculosis dispensaries, nursing service, medical lectures and demonstration programmes, baby Shows and measures taken by the Agricultural Department over a period of years.

After careful examination of the data available it is apparent that deficiency of nutrition in Cyprus is both quantitative and qualitative, the former being due to poverty and the latter largely to ignorance and lack of education in food values. Certainly a large portion of the population are deficient in first-class proteins with a tendency to excessive consumption of carbohydrates.

Finally, it has always been thought that diet deficiency diseases were absent from Cyprus. It is interesting to note, however, that during the past few months several typical cases of Pellagra have been seen and treated. It is my opinion that, as all Medical Officers are aware of this, more cases will, from now on, be brought to the attention of the Department.

### NEW GENERAL HOSPITAL AND THE JUBILEE SANATORIUM AT KYPEROUNDA.

Construction of the new hospital at Nicosia steadily proceeds and it should be ready to receive patients during November or December, 1939. Patients requiring in-patient treatment are now regularly turned away from the out-patients' Department at Nicosia, because beds are not available for them. The 122 extra beds to be provided at the new hospital should do much to correct the present position.

The new sanatorium will also shortly be under construction by contract, the water has already been brought to the site and it too will, it is thought, be receiving patients in approximately 12 months' time and will then be linked up to a comprehensive programme of tuberculosis control which will be placed in the hands of the Tuberculosis Officer who is now undergoing intensive training in England.

*Education.*—The three Cypriot girls, referred to in previous Reports, finished their studies at the School of Nursing, American University, Beirut, Syria, and returned to the Colony during June. On 1st September they were transferred for duty to the Government Hospital, Limassol, replacing two English Sisters and have given satisfactory service ever since. Four more suitable girls entered the same school during September



and it is my intention to select three more—from the numerous girls who have applied for training—for the course there commencing September, 1939. In consideration of their training (which is paid for by Government) each girl is required to enter into a contract by which she will give 3 years' service in the Medical Department following graduation.

As the year ended arrangements were completed to open the school for Sanitary Inspectors during January, 1939. The four months' course (excluding 2–3 months' practical training) entitles pupils to sit for the examinations for the Certificate of the Royal Sanitary Institute for Sanitary Inspectors, a much coveted document in that all Health Inspectors to Government are required to obtain it before they are eligible for confirmation in the service. All Health Inspectors passing out from this school are quickly absorbed into the various health services of the Colony and can be found all over the Island working to good effect with this Department, Municipalities or Mining Companies.

The continued training of Midwives, Trachoma Nurses, Pharmacists and Chemists is also having its effect.

#### RURAL DEVELOPMENT SCHEME.

Assisted by the Near East Foundation and a grant from the Governing Body of the Carnegie Trust Fund, the Medical Department, the Agricultural Department, the Department of Education and the District Administration are co-operating in a scheme for the intensive development of two groups of villages. One group is essentially hilly and malarious; the other on the plains with little malaria but much trachoma. Each group includes 10 villages, the former being in Paphos and the latter in Nicosia District. In respect of health and sanitary services both groups are directly supervised by a trained Sanitary Inspector and Midwives who have training in general nursing and eye work.

Situated centrally in the Nicosia group of villages is a Home Demonstration Centre staffed by a nurse and a teacher. The Demonstration Centre is a typical village house made clean, comfortable and sanitary at very small expense indeed and provided with a garden and bore-hole latrine. Here village wives are entertained and instructed in homecraft, infant welfare, simple nursing, home sanitation and personal hygiene.

The entire scheme is doing much good and the inhabitants appear enthusiastic. It is hoped the idea will spread.

#### MENINGOCOCCAL MENINGITIS.

284 cases of the above disease were notified and treated as compared with 836 during 1937. There is good reason to believe that protective immunization carried out and the intensive work on housing in the mining areas and elsewhere may have had much to do with the decrease. During the last quarter of 1937 over 30,000 people in villages, where incidence had been high, received vaccine and 5,054 more were injected during the last 3 months of 1938. Of cases presenting during the year only 18 are recorded as presenting in persons who had been inoculated and of these 3 died. This programme as well as the results of a large group treated only with "Prontosil" and other Sulphanilamides will, it is hoped, be the subject of a departmental paper during 1939.

#### MALARIA.

Useful work has been carried out during the year under review and cases presenting from Government Hospitals and Rural Dispensaries were reduced from 18,273 cases in 1937 to 11,654 cases during 1938. The principal reason for the reduction probably was intensive work of control—on a scale not previously attempted—over a total area of some 215 square miles utilizing the larvicide paris green in liquid form. This work was carried out under the supervision of staff members of the Rockefeller Foundation in the Kyrenia and Tilliria areas both of which suffer from a very high incidence of malaria. Over 20,000 people reside in the controlled areas. Before the season started all breeding places of anopheline mosquitoes were spotted on maps following a survey of the Districts and during March intensive control was started under the direct supervision of trained personnel. Catching stations were established and accurately timed catchings carried out weekly by trained Sanitary Inspectors. After June no adults could be found and new cases of malaria were reduced to a minimum in both areas. Sanitary Inspectors from most other Districts of the Island were brought to Kyrenia or the Tilliria to learn this new method of control and then sent back to their own stations to carry out there, as well as they could, similar work with limited staff. It is my intention to extend such control to the whole Paphos District during 1939 and £1,000 has been provided in the Estimates for this purpose. Paphos is the most malarious District of the Island.

#### FREE DISTRIBUTION OF QUININE.

An improved system for the free issue of quinine to malarious villages was also instituted during the year. The final distribution was entrusted to Village Committees who were required to keep accurate records of quinine received and distributed. Three grain tablets, coloured blue, were utilized and villages were selected where, following a survey, spleen and blood parasite rates were known to be high. This drug was much appreciated by the villagers and most certainly assisted in the work of control.



## TUBERCULOSIS.

Interest and work have been well maintained in regard to this disease during the year under review. The newly-appointed Tuberculosis Officer—Dr. C. E. Bevan—proceeded to England for special work during October and will, it is expected, return in June or July, 1939. Attendance at the Dimitriou Dispensary at Larnaca and the Philip Dispensary, Nicosia, totalled 635 for 1938 of which 139 were found to be suffering from tuberculosis and sufferers or suspected sufferers have come from all over the Island direct to the above treatment centres. The beds provided at Athalassa Sanatorium were constantly full, although, thanks to the general programme instituted and maintained by the Cyprus Anti-Tuberculosis League and its District Committees, the turn-over at Athalassa has been accelerated considerably through earlier cases seeking admission there.

The decline of the fear of this disease and the earlier cases now presenting speak strongly for the success of this programme of prevention.

## TRACHOMA.

The Trachoma Nurses continue to do useful work and more of these together with another full-time Travelling Oculist are provided for in the 1939 Estimates. When I say that 2,262 new cases of Trachoma were reported during 1938 and 14,703 cases are known, some idea can be formed of the magnitude of this problem.

Before leaving Cyprus for Greece (26th February, 1938) Her Royal Highness the Princess Royal gave £50 to His Excellency for charitable purposes. This formed a nucleus of a fund "The Princess Royal Charitable Fund" which has been subscribed to throughout Cyprus and is "to be employed in combating Trachoma and also for other charitable purposes." To the end of the year £877. 4s. 4p. have been collected. His Excellency has appointed a Committee to take care of the administration, management and control of the fund and I feel sure that a great deal will be possible in a restricted area utilizing the above sum and contributions which yet may be expected.

## VENEREAL DISEASES.

The prophylactic stations established two or three years ago in the six principal towns are doing valuable work of prevention, the total attendance being 79,271 during 1938. A new station, opened at Lefka during the year, is partially financed by the Cyprus Mines Corporation in whose area it is, but figures of treatment given are not at the moment available.

## TYPHOID FEVER.

621 cases were reported during 1938 as against 666 in the previous year. The incidence of this disease is a constant source of worry to me and I am definitely of the opinion that it will remain so until the rural population are equipped with fly-proof latrines. There can be no doubt that the disease is being mainly transmitted by flies. The village of Dheftera has been sanitated by the Rockefeller Foundation and I hope to sanitate completely another village in the Rural Development group of villages. The Village Public Health Law has now been applied to many villages in Cyprus and is slowly but surely being extended. These measures should eventually assist greatly in preventing the whole enteric group of diseases.

## BUREAU OF MALARIA CONTROL.

Mr. J. C. Carter, Sanitary Engineer to the Rockefeller Foundation, continued to visit Cyprus frequently during the year and was personally responsible for the work of Malaria Control carried out in the Kyrenia District. He carried out mosquito catches, blood and spleen surveys and general supervision of all control work. Mr. Carter was assisted by the highly-trained staff of the Bureau of Malaria Control. Full details of this work will be found in the Appendices which follow.

Dr. M. C. Balfour, of Greece, and Dr. R. K. Collins, of Ankara, Turkey, both Staff Members of the Rockefeller Foundation, also visited the Island on duty and gave much valuable advice and assistance.

## CHILD WELFARE AND DAY NURSERIES.

Child Welfare Centres are operating successfully in all the important towns throughout the Island and Day Nurseries at Limassol and Nicosia. The Day Nursery at Nicosia functions on an ever-increasing scale. The Director of Medical Services was present at its opening on the 15th May, 1936, when only 15 children of working mothers were cared for. The Nursery has steadily grown and now 67 children receive food, clothing and shelter while their mothers work and new extensive premises have been acquired in a school building. Many of these children, in the absence of this Nursery, would be alone on the streets or in impoverished houses. This Nursery is under the management and administration of a group of Greek ladies known as the "Mana" Society.

Most school children of the principal towns are given the opportunity of one meal a day at a "Syssition" (soup-kitchen) where nourishing food is supplied by the Municipality. This movement is extending and it is hoped it will soon be possible to give many elementary school children milk in some form or other.



## SCHOOL DENTAL CLINICS.

Four new School Dental Clinics have been established during 1938, one in Nicosia and one in Limassol Orthodox-Christian Schools, one in Nicosia and one in Larnaca Moslem Schools. During 1939 it is hoped to open two more, one in Larnaca and one in Famagusta Orthodox-Christian Schools.

These clinics each have their own School Dental Officer paid by the School Committees and are under the supervision of the Government Dental Officer.

## TRADES AND INDUSTRIES.

Since the Law "To provide for the Regulation of Trades and Industries in the interest of Public Health and Public Safety" was enacted late in 1937, it has been possible to bring about much improvement in the trades and industries scheduled. Under the Law a licence may be refused if the owner of the premises does not promptly carry out this Department's recommendations in respect of sanitation, ventilation, air-space, etc. On inspection it was found that most premises were in extremely bad condition but, given time, most owners were found quite willing to spend money for the suggested changes and considerable improvement is gradually being brought about. In Nicosia District alone 402 applications for licence were received of which 63 had necessarily to be refused.

## MUKHTARS' CERTIFICATES.

Revenue this year amounted to £6,031. 2s. 4p. as compared to £5,729. 5s. 2p. during 1937. Of this £2,671. 0s. 8½p. was collected from holders of Mukhtars' Certificates as against £2,511. 6s. 2p. during 1937 :—

<i>Government Hospitals and Dispensaries :</i>	£	s.	p.
From out-patients .. .. .	1,333	17	3½
From in-patients .. .. .	840	2	4½
<i>Aided Hospitals :</i>			
From in-patients .. .. .	407	15	5½
<i>Rural Hospitals :</i>			
From in-patients .. .. .	89	5	4
	£2,671	0	8½

## (B) ESTABLISHMENT (INCLUDING VACANCIES), ACTING APPOINTMENTS AND PROMOTIONS.

The establishment of the Medical Department, Cyprus, during 1938, is given in Appendix F.

The names of the holders of the principal appointments are :—

## PRINCIPAL ACTING APPOINTMENTS.

<i>Name</i>	<i>Acting Appointment</i>	<i>From</i>	<i>To</i>
Dr. C. C. H. Cuff, Specialist (Surgeon)	Director of Medical Services ..	28.5.38	16.11.38

## NEW APPOINTMENTS.

<i>Name</i>	<i>Appointment</i>	<i>Date</i>
Mr. John G. Marcellos .. .. .	Dental Officer .. .. .	1st Jan., 1938
Dr. Artemis A. Pavlides .. .. .	Medical Officer, 2nd Grade ..	do.
Dr. Zenon G. Panos .. .. .	do. .. .. .	do.
Dr. George J. Himonides .. .. .	District Surgeon .. .. .	3rd Feb., 1938
Dr. G. E. J. Porter .. .. .	District Medical Officer ..	4th Feb., 1938
Dr. W. P. Griffin .. .. .	do. .. .. .	4th Feb., 1938
Dr. P. W. Dill-Russell .. .. .	do. .. .. .	12th Feb., 1938
Dr. Vias M. Skoufarides .. .. .	District Surgeon .. .. .	7th Mar., 1938
Dr. Emilius M. Frangofinos .. .. .	do. .. .. .	do.
Dr. Costas M. Contarinis .. .. .	do. .. .. .	20th May, 1938

## SECONDMENT.

<i>Name</i>	<i>Appointment</i>	<i>Date</i>
Dr. C. E. Bevan, District Medical Officer.	Special Duty as Tuberculosis Officer for a period of three years.	1st Jan., 1938



## RETIREMENTS, RESIGNATIONS AND TRANSFERS.

Name	Post	Date
Miss M. Nicholls .. .. .	Nursing Sister .. .. .	6th Oct., 1938
Miss F. M. E. Pepper .. .. .	Matron .. .. .	19th Dec., 1938
Miss A. Hodgson .. .. .	Nursing Sister .. .. .	1st Jan., 1939
Dr. G. M. Gibbon .. .. .	District Medical Officer .. .. .	8th Oct., 1938

## DEATHS.

Nil.

## (c) LIST OF LAWS AFFECTING PUBLIC HEALTH ENACTED DURING THE YEAR.

The following Laws were passed during the year :—

No. 7 of 1938.—A Law to amend and consolidate the Law relating to Summer Resorts.

No. 14 of 1938.—A Law to regulate Sanitation and other matters in Hotels, Lodging Houses and Public Buildings and to provide for the licensing of Lodging Houses.

No. 18 of 1938.—A Law to make better provision for the Sale of Food and Drugs.

No. 19 of 1938.—A Law to amend the Public Health (Villages) Laws, 1936 and 1937.

No. 28 of 1938.—A Law to amend the Hotels Law, 1935.

The new Law enacted controlling the Sale of Food and Drugs was modelled on the English Law and was necessary to bring local control into line with recent legislation in England and other Colonies. Many amendments, which experience has shown to be necessary, were thus effected.

## PUBLIC HEALTH (VILLAGES) LAWS, 1936 TO 1938.

273 Village Health Commissions have made rules under section 9 of the above-mentioned Laws.

## (d) FINANCIAL.

The total expenditure of the Medical Department was :—

	1935			1936			1937			1938		
	£	s.	p.	£	s.	p.	£	s.	p.	£	s.	p.
Personal Emoluments	22,950	0	2	22,835	19	5	24,859	19	6	26,426	9	3
Other Charges	29,478	9	2	30,719	1	0	35,735	19	8	35,515	8	2
Total	£52,428	9	4	£53,555	0	5	£60,595	19	5	£61,941	17	5

This represents 6.82% of the total expenditure of the Island during 1938, i.e. £908,024. 6s. 5p.

The total revenue of the Medical and Sanitary Department, as shown below, amounted to £6,031. 2s. 4p. as against £5,729. 5s. 2p. in 1937.

	REVENUE.		£	s.	p.
1. Sale of Medicines	..	..	1,255	5	2
2. Hospital Receipts	..	..	2,472	4	3
3. Other	..	..	1,090	4	0
4. Analytical and Bacteriological Fees	..	..	152	14	0
5. Registration of Diplomas	..	..	112	18	0
6. Quarantine Dues and Health Certificates	..	..	947	16	8
Total	..	..	£6,031	2	4

## (e) MEDICAL STORES.

The extensive changes foreshadowed last year in respect of the Medical Stores were carried out. The result is practically new premises and almost double the accommodation for both staff and stores. A large electric refrigerator was purchased and installed for the storage of biologicals and other perishable preparations.

The position of stock at the end of the year was as follows :—

	£	s.	p.
Value of stock on 1st January, 1938	2,178	11	1
Bought during 1938	8,121	19	2
	10,840	10	3
Value of stock on 31st December, 1938	3,064	1	2
Value of stock issued equals	£7,776	9	1



## II. PUBLIC HEALTH.

### (A) GENERAL REMARKS.

The health of the Island generally has been satisfactory during the year and with the exception of Meningococcal Meningitis no disease in epidemic form presented. Records kept by Government Medical Officers and institutions show that 11,654 cases of malaria were seen during the year as compared with 18,273 cases reported in 1937.

Patients seen at hospitals and rural dispensaries during the year numbered 139,039, made up of 95,450 out-patients, 6,520 in-patients, 269 at the Mental Hospital and 36,800 examined by the Honorary Dentists.

The following tables show the number of cases of General Systemic and Communicable Diseases treated in Government Institutions:—

Total Cases (a) & (b) .. .. .		101,970
(a)—General Systemic Diseases .. .. .	75,240	(b) Communicable Diseases .. .. . 26,730
(1) Digestive system .. .. .	21,783	(1) Malaria .. .. . 10,956
(2) Eye .. .. .	11,288	(2) Influenza .. .. . 3,736
(3) Skin Diseases .. .. .	9,828	(3) Other Diseases .. .. . 9,757
(4) Respiratory system .. .. .	8,930	(4) Tuberculosis .. .. . 631
(5) General & Other Diseases .. .. .	16,576	(5) Gonorrhoea .. .. . 1,102
(6) Nervous system .. .. .	5,496	(6) Syphilis .. .. . 548
(7) Organs of Locomotion .. .. .	1,339	

### (B) DISEASES.

#### COMMUNICABLE DISEASES.

##### (a) Insect-borne Diseases.

**Malaria.**—The incidence of Malaria was lower in 1938 than 1937. The number of cases of this disease reported during the last four years were:—

1935 ..	17,917	1936 ..	12,779	1937 ..	18,273	1938 ..	10,956
---------	--------	---------	--------	---------	--------	---------	--------

The percentage of Malaria cases was 41.0% of the combined out-and in-patients suffering from communicable diseases during 1938.

The causes for the low incidence was probably due both to climatic conditions and the intensive work of control carried out in the Kyrenia District and the Tilliria area together with improved methods of utilizing larvicides over the entire Island.

The Rockefeller Foundation's Sanitary Engineer, Mr. J. C. Carter, continued experimental work on the Kyrenia coast, full particulars of which will be found in the Appendices.

Probably the most noteworthy contribution to control work and one which it is thought, will be utilized elsewhere, was the paris green-water mixture with which the entire Tilliria area was controlled with outstanding success during the year. This method—for which Mr. Aziz, the Chief Sanitary Inspector, is responsible—consists of mixing paris green with plain water and spraying it over the breeding surface; the strength used was approximately 1 gram of paris green to each litre of water. This method, which is a modification of Dr. Barber's paris green-kerosene-egg albumin-water method as described on page 51 of the 1936 Annual Report, was used in the above area of Nicosia District with very satisfactory results and is explained in some detail by Mr. Aziz, M.B.E., in a small Departmental paper now being published.

No major drainage work was undertaken during the year and the measures generally adopted was routine treatment of all breeding places with paris green.

The drainage and reclamation of the extensive marshes at Akrotiri and Syrianokhori, foreshadowed some time ago, has not yet been possible but considering that land to the value of £8,000–£10,000 would, it is thought, be reclaimed and two of the most malarious parts of the Island completely freed from this disease, it is intended to ask approval for both engineering projects during 1940 or 1941.

Mr. A. H. P. McLaughlan, Divisional Engineer to the Public Works Department, who has been doing duty with the Bureau of Malaria Control, proceeded to Harvard University during September on a Rockefeller Foundation Fellowship. His Course of University Study and Field Work will extend over a period of 12 months following which he will take up full-time duties with the Medical Department.

#### GAS OIL, PARIS GREEN, QUININE ISSUED AND USED DURING THE YEAR 1938.

Year 1938	Nicosia	Larnaca	Limassol	Famagusta	Paphos	Kyrenia	Total	Approximate amount of Quinine in kilos
	kilos	kilos	kilos	kilos	kilos	kilos	kilos	kilos
Gas Oil .. ..	1,524	1,016	999,744	1,016	1,016	1,016	6,587,744	—
Paris Green ..	1,588	150	550	340	850	100	3,578	—
Quinine Bisulph.	16	2	5	2	5	1.5	31.5	—
	No.	No.	No.	No.	No.	No.	No.	No.
Tab. Quinine Bi-sulph. grs. 2 ..	17,500	1,500	3,500	4,500	4,000	500	31,500	4
Tab. Quinine Bi-sulph. grs. 3 ..	47,000	10,000	13,100	10,000	12,000	2,000	94,000	19
Tab. Quinine Bi-sulph. grs. 5 ..	190,800	38,000	66,000	36,000	39,000	14,000	383,800	128
Tab. Quinine Bi-sulph. (coloured) grs. 3 .. ..	144,500	23,700	84,000	17,400	126,000	2,400	398,000	79.5



## DETAILED FIGURES OF PRINCIPAL ANTI-MALARIAL WORKS CARRIED OUT.

	Nicosia	Larnaca	Limassol	Famagusta	Paphos	Kyrenia
River beds, drains, streams dealt with and new drains made, in miles .. .. .	47 ..	90 $\frac{3}{4}$ ..	26 ..	52 ..	218 ..	81
Wells and tanks covered, filled, oiled and stocked with fish .. .. .	2,389 ..	4,111 ..	3,225 ..	8,321 ..	4,512 ..	896
Premises inspected ..	86,239 ..	118,894 ..	102,746 ..	132,318 ..	99,293 ..	13,831
Number of visits to villages by Sanitary Staff .. .. .	3,600 ..	1,337 ..	1,840 ..	1,710 ..	1,764 ..	306
Paris green used in kg.	1,241 $\frac{1}{2}$ ..	239 $\frac{1}{2}$ ..	621 $\frac{1}{2}$ ..	170 ..	889 ..	106 $\frac{1}{2}$
Gas oil used in tons ..	2 $\frac{1}{2}$ ..	1 $\frac{1}{4}$ ..	1 $\frac{1}{4}$ ..	1 $\frac{1}{2}$ ..	1 $\frac{3}{4}$ ..	0 $\frac{3}{4}$

## (b) Other Communicable Diseases.

*Smallpox and Vaccinations.*—No case of smallpox occurred during 1938.

The table below shows the number of vaccinations performed during the year under review :—

Number of vaccinations .. .. .	7,866	
Primary vaccinations .. .. .		7,085
Successful .. .. .	4,654	
Unsuccessful .. .. .	1,554	
Not accounted for .. .. .	877	
Re-vaccinations .. .. .		781
Successful .. .. .	337	
Unsuccessful .. .. .	314	
Not accounted for .. .. .	130	

*Plague.*—Anti-rat measures are being carried out at the principal ports. 1,161 rats were trapped by the sanitary staff, and spleen smears were examined by the Government Pathologist. All such smears were negative.

The ports of Larnaca, Famagusta and Limassol are now equipped to carry out the deratisation of ships up to 220 tons, and to issue certificates to an effect that this has been carried out.

*Pulmonary Tuberculosis.*—The number of cases of pulmonary tuberculosis reported during the year was 193, compared with 257 in 1937. The following tables give details collected from the notification cards :—

## PULMONARY TUBERCULOSIS.

		By Sex and Age Group.													Grand Total	
Male		0-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	N.R.	Total	Total	
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Nicosia	..	..	—	1	—	4	9	13	11	7	1	—	—	—	46	
Larnaca	..	..	—	1	—	3	3	4	1	3	—	1	1	—	17	
Limassol	..	..	—	—	1	—	5	4	—	—	—	—	—	—	10	
Famagusta	..	..	—	—	—	1	4	5	1	3	3	—	—	—	17	
Paphos	..	..	—	1	—	—	1	3	3	—	—	—	—	—	8	
Kyrenia	..	..	—	—	—	1	2	2	1	2	—	—	—	—	8	
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Total	..	..	—	3	1	9	24	31	17	15	4	1	1	—	106	
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Female																
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Nicosia	..	..	—	1	—	3	5	9	6	—	—	—	1	1	26	
Larnaca	..	..	—	—	3	6	4	5	3	3	—	—	—	1	25	
Limassol	..	..	—	—	1	1	3	—	2	—	1	—	—	—	8	
Famagusta	..	..	—	—	1	3	1	6	5	1	1	—	—	—	18	
Paphos	..	..	—	—	—	1	1	2	2	—	—	—	—	—	6	
Kyrenia	..	..	—	—	—	2	1	1	—	—	—	—	—	—	4	
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Total	..	..	—	1	5	16	15	23	18	4	2	—	1	2	87	
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Grand total	..	..	—	4	6	25	39	54	35	19	6	1	2	2	193	
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	

<i>Cases by Race.</i>									
<i>English</i>	<i>Orthodox-Christians</i>				<i>Moslems</i>	<i>Other</i>			
1	..	..	158	..	..	31	..	..	3
									193

*Cases per 10,000 of Population per District.*

Nicosia .. .. .	5.9	Paphos .. .. .	3.1
Larnaca .. .. .	8.8	Kyrenia .. .. .	5.1
Limassol .. .. .	2.9	Whole Colony .. .. .	5.1
Famagusta .. .. .	4.5		

ATHALASSA SANATORIUM.

The accommodation at this sanatorium remains the same—i.e. 53 beds of which 31 are for male and 22 for female patients.

During the absence of the Tuberculosis Officer on study leave in England, Dr. T. Evangelides has been in charge of the medical work while the Director of Medical Services attended to assist in the administration.

The following tables provided by the Medical Officer-in-charge are of interest:—

TABLE I.

	<i>Males</i>		<i>Females</i>		<i>Total</i>	
Remaining at end of 1937 .. .. .	30	..	20	..	50	
Admitted .. .. .	59	..	27	..	86	136
Discharged .. .. .	36	..	9	..	45	
Deaths .. .. .	22	..	19	..	41	
Remaining at end of 1938 .. .. .	30	..	20	..	50	86
						50

*Admissions.*—The origin of the 86 cases admitted was as follows:—

From Philip Dispensary .. .. .	61 (70.93%)
From Larnaca Dispensary .. .. .	6 ( 6.98%)
From Government Departments and Private Practitioners .. .. .	21 (22.09%)

All the above admissions were made through the Director of Medical Services.

Table II shows the number of cases admitted, from the six Districts of the Island:—

TABLE II.

<i>District</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>	<i>Percentage</i>
Nicosia .. .. .	22	11	33	38.37%
Limassol .. .. .	8	3	11	12.79%
Larnaca .. .. .	6	6	12	13.96%
Famagusta .. .. .	12	7	19	22.09%
Kyrenia .. .. .	6	—	6	6.98%
Paphos .. .. .	5	—	5	5.81%
Total .. .. .	59	27	86	100%

Table III showing classification in age groups of all cases admitted during the year 1938.

TABLE III.

<i>Age</i>	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	<i>Total</i>
Male .. .. .	—	3	13	11	11	5	5	4	4	2	1	59
Female .. .. .	1	4	7	6	3	2	1	1	1	—	1	27
Total .. .. .	1	7	20	17	14	7	6	5	5	2	2	86

It should be mentioned that 7 cases re-admitted during the same year are classified as new admissions.

*Discharged.*—In this classification 13 male patients who left the sanatorium against advice have been included.

Table IV shows the condition of all cases, classified as discharged.



TABLE IV.

	Male	Female	Total
Quiescent .. ..	1	1	2
Much improved .. ..	12	4	16
Improved .. ..	8	3	11
Not improved .. ..	2	1	3
Self-discharged .. ..	13	—	13
Total .. ..	36	9	45

Many families of patients from all Districts were assisted by the Cyprus Anti-Tuberculosis League during the patients' stay at the Sanatorium and, when necessary, after their discharge.

Members of the Honorary Consulting Staff of the Nicosia General Hospital paid regular visits for specialist work to all Hospitals and Institutions.

#### PHILIP DISPENSARY, NICOSIA.

This Dispensary continued to do useful work. Medicines purchased from Government Medical Stores or local pharmacies were given gratis as necessary to patients attending. Examination of sputa was also done without charge at the Government Laboratory, while X-Ray examination was carried out at the Government Hospital for a very small fee. For most of the year the Dispensary has been open for patients on two days a week: Mondays and Fridays, from 9 a.m. to 1 p.m.

The following table shows the sources from which new cases were received:—

Attending on their own initiative .. ..	62	21.76%
Referred by Government Medical Officers .. ..	99	34.74%
Referred by Private Practitioners .. ..	39	13.68%
Contacts .. ..	57	20.00%
Discharged from Sanatorium .. ..	8	2.81%
From Chest Clinic, 1936 .. ..	4	1.40%
Sent by Government Departments or Mukhtars, etc. ..	16	5.61%
Total .. ..	285	100 %

The total number of patients attended during 1938 was as follows:—

New cases .. ..	285
Old cases .. ..	394
Total .. ..	679

Of the new cases attending, 84 (29.82%) were found to be suffering from pulmonary tuberculosis and came to the Dispensary from all over the Island.

The routine work was carried out, in the same way as in 1937, *i.e.* cases found to be suffering with diseases other than tuberculosis were sent to their private doctor or if poor referred to the Government Hospital. The tuberculosis cases referred to the Dispensary by private doctors were returned to them, if this was the desire of the doctor, with a statement concerning diagnosis and necessary treatment. The remainder were considered as Dispensary patients and were treated at the Sanatorium or at their homes, according to their desire.

During the year, 61 admissions to the Sanatorium were made from this Dispensary.

57 contacts of Tuberculosis cases presented at the Dispensary were examined during the year of which three were found to be suffering from Pulmonary Tuberculosis.

133 homes in Nicosia and Kyrenia Districts were under constant supervision and 242 other visits were made by the doctor or Health Visitor. Useful work was done in this way in that advice was given on the spot regarding isolation, beds and bedding, home surroundings, etc. £184. 12s. 2½p. was spent in assistance to sufferers. This money was supplied from funds collected and held on charge by the Cyprus Anti-Tuberculosis League. Money was never given to patients, but arrangements made by the Health Visitor through the Mukhtar whereby local grocers would supply the desired food.

The Care-Committee of this Dispensary met fortnightly through the year for consideration of patients and contacts requiring assistance.



## THE DIMITRIOU DISPENSARY, LARNACA.

The Dimitriou Anti-Tuberculosis Dispensary situated in the grounds of the Larnaca Hospital was completed towards the end of 1937 as a result of a generous donation by Mr. D. N. Dimitriou, O.B.E. The Dispensary started work in January in charge of the Tuberculosis Officer and on the 8th of October Dr. T. Evangelides took over during the former's absence on study leave. For the first half of the year Dr. Bardswell used this Dispensary as his medical headquarters for an intensive survey of the whole of the Larnaca District. Patients from all over the District were brought for X-Ray and clinical examination. The great majority of these patients would not have attended for such an examination in the ordinary course of events and the figures for attendances can therefore give no indication of normal dispensary attendances.

During the year there were 449 attendances and the number of cases was 350 of which 55 were diagnosed as having tuberculosis. Of the latter 18 were sputum positive, 16 sputum negative and in 21 patients the sputum was not examined.

In order to explore the possibilities of running a dispensary on modern lines and carefully modified to suit local conditions, an attempt was made to train suitable candidates for Health Visitors or Nurses. Two girls were employed on a temporary basis and although neither of them was eventually employed as a Health Visitor, sufficient experience was gained to show that young Cypriot girls, with a reasonable standard of general education and intelligence, would be willing to undertake such work. In October one girl was taken on as Probationary Nurse and is still undergoing her training. It appears that she should eventually make a satisfactory Health Visitor.

1,029 tuberculin patch tests were carried out during the year and in 950 the results were able to be recorded. 396 of these were positive (41.7%). This figure is probably considerably greater than that which would result from testing the general population and tests were to some extent confined to patients attending the Dispensary and their immediate contacts.

251 visits were made to the homes of tuberculous patients with the object of obtaining better knowledge of local living conditions and also for giving instructions in the hope of preventing further spread of the disease. 434 visits were made to homes where there was no known tuberculous infection. This was done largely to allay suspicion and to give a more general public health basis to the whole campaign. Much of this visiting was also done in connection with Dr. Bardswell's survey.

The Care-Committee attached to the Dispensary continued to do useful work. Relief was given, usually in the form of extra nourishing food, additional beds, provision for holidays during the hot summer weather and the sending of 13 children to a holiday camp. The Committee unanimously agreed that all relief was given only on the advice of the nurse or doctor attached to the dispensary. During the year £170. 2s. 2½p. was expended on care-work.

Dr. C. E. Bevan, District Medical Officer, selected by the Director and seconded on probation for duty as Tuberculosis Officer, proceeded to England during October for post-graduate work in Tuberculosis. His courses of study were to be arranged through the Colonial Office and the National Association for the Prevention of Tuberculosis and on his return he will be asked to submit in detail a scheme to elaborate and consolidate the programme of work at present being carried out over the Island.

From impartial observation of the work and records submitted herein and on file it can readily be seen, however, that the Tuberculosis programme as instituted, elaborated and maintained has been quite satisfactory and that remarkable progress has been made in control work since the National Association for the Prevention of Tuberculosis became interested in our problem nearly four years ago.

With profound regret and an immense sense of loss the news was received of both Dr. Noel D. Bardswell's death and that of Sir Robert Philip, President of the National Association for the Prevention of Tuberculosis. Cyprus has much indeed to thank them both for.

*Epidemic Meningococcal Meningitis.*—The epidemic of meningococcal meningitis which started at the end of 1936 and assumed serious epidemic form in 1937 continued during 1938, but in a rather sporadic form. The distribution of meningitis cases occurring by District is shown by the following table:—

District	Cases in 1937	Cases in 1938
Nicosia .. ..	426	81
Larnaca .. ..	22	36
Limassol .. ..	159	52
Famagusta .. ..	16	34
Paphos .. ..	183	63
Kyrenia .. ..	31	19
Colony .. ..	837	285



The disease presented a decrease of 64.7% compared with that of 1937.

A detailed report giving full particulars of incidence during the year has been received for Departmental files.

**TYPHOID.**

Typhoid Fever returns show 621 cases as notified during the year as against 667 cases in 1936 and 666 in 1937.

*By Sex and Age Groups.*

		By Sex and Age Groups.														Grand
Male		0-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	N.R.	Total	Total	
Nicosia	..	..	13	21	21	21	13	10	4	2	2	—	—	1	108	
Larnaca	..	..	5	10	6	1	3	3	1	—	—	—	—	—	29	
Limassol	..	..	6	15	6	15	6	2	4	—	—	—	—	—	54	
Famagusta	..	..	13	19	9	4	2	3	—	1	—	—	—	—	51	
Paphos	..	..	1	5	5	3	1	2	—	1	—	—	—	—	18	
Kyrenia	..	..	1	5	4	5	5	—	—	—	—	—	—	—	20	
Total		..	39	75	51	49	30	20	9	3	3	—	—	1	280	
Female																
Nicosia	..	..	18	28	21	22	17	15	5	—	1	—	—	—	127	235
Larnaca	..	..	5	4	8	8	6	2	4	—	2	—	—	—	39	68
Limassol	..	..	9	16	7	12	5	4	2	3	—	—	—	—	58	112
Famagusta	..	..	15	25	12	4	3	4	2	1	—	—	—	—	66	117
Paphos	..	..	1	5	4	1	3	2	3	—	—	1	—	—	20	38
Kyrenia	..	..	3	5	5	5	5	5	1	1	1	—	—	—	31	51
Total		..	51	83	57	52	39	32	17	5	4	1	—	—	341	621
Grand total		..	90	158	108	101	69	52	26	8	7	1	—	1	621	

*Cases by Race.*

<i>English</i>	<i>Orthodox-Christians</i>	<i>Moslems</i>	<i>Other</i>	<i>Total</i>
—	—	—	—	—
—	544	74	3	621

The following table shows the rate per 10,000 population (1934-1938).

*Districts.*

<i>Year</i>	<i>Nicosia</i>	<i>Larnaca</i>	<i>Limassol</i>	<i>Famagusta</i>	<i>Paphos</i>	<i>Kyrenia</i>	<i>Colony</i>
1934	7.40	38.60	12.30	5.10	7.20	3.90	11.40
1935	19.40	20.70	12.60	11.30	9.00	11.60	12.00
1936	26.08	12.61	15.58	14.17	15.70	12.50	18.16
1937	23.16	19.04	12.16	14.03	13.21	25.70	17.95
1938	19.30	14.30	18.20	15.00	8.50	21.18	16.20

The maximum seasonal prevalence was in the month of September during which month 102 cases were notified followed by the month of January with 88 cases.

Of 621 cases presenting this year only 54 cases proved fatal.

### Measures of Control.

Measures of control followed four lines :—

- (a) Extension of installation of latrines.
- (b) Improvement of water supplies.
- (c) T.A.B. Inoculation.
- (d) Propaganda.

In spite of all our efforts, however, the majority of houses in rural areas continue to use open yards and stables as latrines. As previously stated, each new house to be built or repaired is required under the Law to have a proper, approved type of latrine and this gradually will tend to improve the present state of affairs.

Water supplies have been given special attention throughout the year and in many cases improvement has been possible. Municipal water supplies are open to pollution and serious consideration is required by the Authorities, especially in Nicosia, Larnaca and Kyrenia. The solution of the problem is of vital importance to health and sanitation.

T.A.B. programme of inoculation, commenced in 1936, was continued during 1937 and 1938 and it would appear to be responsible for the substantial decrease of incidence in the villages concerned.

## BACILLARY DYSENTERY.

The total number of bacillary dysentery cases notified during the year 1938 was 60 as compared with 84 in 1937. Since 1930 this disease shows a steady decrease.



The following tables give details collected from the notification cards :—

<i>By Sex and Age Groups.</i>														Grand Total
<i>Male</i>	0-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	N.R.	Total	
Nicosia .. ..	4	—	1	1	3	4	—	—	—	—	1	—	14	
Larnaca .. ..	1	—	—	1	—	—	1	—	—	—	—	—	3	
Limassol .. ..	—	—	—	—	2	—	—	—	—	—	—	—	2	
Famagusta .. ..	4	2	—	1	—	2	—	—	1	—	—	—	10	
Paphos .. ..	—	—	—	—	1	—	—	1	—	—	—	—	2	
Kyrenia .. ..	—	—	—	—	—	—	—	—	—	—	—	—	—	
Total .. ..	9	2	1	3	6	6	1	1	1	—	1	—	31	
<i>Female</i>	0-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	N.R.	Total	
Nicosia .. ..	1	—	1	—	1	—	—	1	2	1	—	1	8	22
Larnaca .. ..	1	—	—	—	—	—	—	—	2	1	—	—	4	7
Limassol .. ..	1	—	—	—	1	1	—	—	1	—	—	—	4	6
Famagusta .. ..	5	—	—	—	1	3	—	1	2	—	—	—	12	22
Paphos .. ..	—	—	—	—	—	1	—	—	—	—	—	—	1	3
Kyrenia .. ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total .. ..	8	—	1	—	3	5	—	2	7	2	—	1	29	60
Grand total ..	17	2	2	3	9	11	1	3	8	2	1	1	60	

*Cases by Race.*

<i>English</i>	<i>Orthodox-Christians</i>	<i>Moslems</i>	<i>Other</i>	<i>Total</i>
7	48	4	1	60

*Cases per 10,000 of Population per District.*

Nicosia .. ..	1.7	Paphos .. ..	0.6
Larnaca .. ..	1.4	Kyrenia .. ..	—
Limassol .. ..	0.9	Whole Colony ..	1.6
Famagusta .. ..	2.8		

**DIPHtheria.**

Sporadic cases of Diphtheria occurred during the year and 21 cases are reported.

*Cases by Sex and Age Group.*

	0-	5-	10-	15-	20-	25-	35-	Over 35	Total
Male .. ..	9	1	—	—	—	1	—	—	11
Female .. ..	7	2	—	—	—	1	—	—	10

*Cases by Race.*

<i>English</i>	<i>Orthodox-Christians</i>	<i>Moslems</i>	<i>Other</i>	<i>Total</i>
—	19	2	—	21

**TRACHOMA.**

2,262 cases were notified during 1938 as compared with 3,505 in 1937.

**UNDULANT FEVER.**

No case reported.

**(c) HELMINTHIC DISEASES.**

*Schistosomiasis.*—No cases were reported nor have snails been readily found as heretofore. It is no longer a public health problem.

*Ascaris.*—173 out-patients and 1 in-patient are recorded this year, as compared with 320 out-patients in 1937.

*Echinococcus Hydatid.*—Hydatid disease (*Echinococcus*) is prevalent in the cystic form and gives rise to many serious complications.

*Veneral Diseases.*—2,502 new cases attended for treatment during the year as against 2,636 during 1937. The prophylactic stations referred to in the last year's Report are greatly utilized by the public, 79,271 treatments having been given there during the year under review.

**OTHER DISEASES.**

*Rheumatism.*—The number of cases, among out-patients and in-patients has decreased from 1,009 in 1937 to 964 in 1938 and from 66 to 58 respectively.

*Eye Diseases.*—11,288 cases, mostly trachoma, have been seen during the year. The constant routine carried out by the Travelling and Honorary Oculists and previously reported upon has been well maintained and with the Trachoma Nurses carrying out continuous treatment better results are being observed. Propaganda in the form of lectures and cinema demonstrations continues.

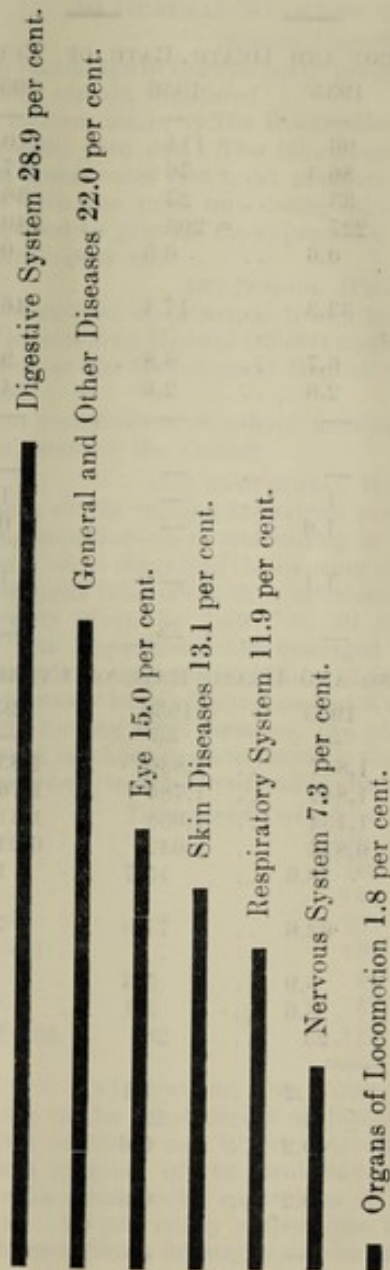
*Wounds.*—A considerable number of incised or penetrating wounds were treated during the year. 1,676 cases were treated ; of these 22.2% were males.

# GENERAL SYSTEMIC AND COMMUNICABLE DISEASES TREATED IN GOVERNMENT INSTITUTIONS.

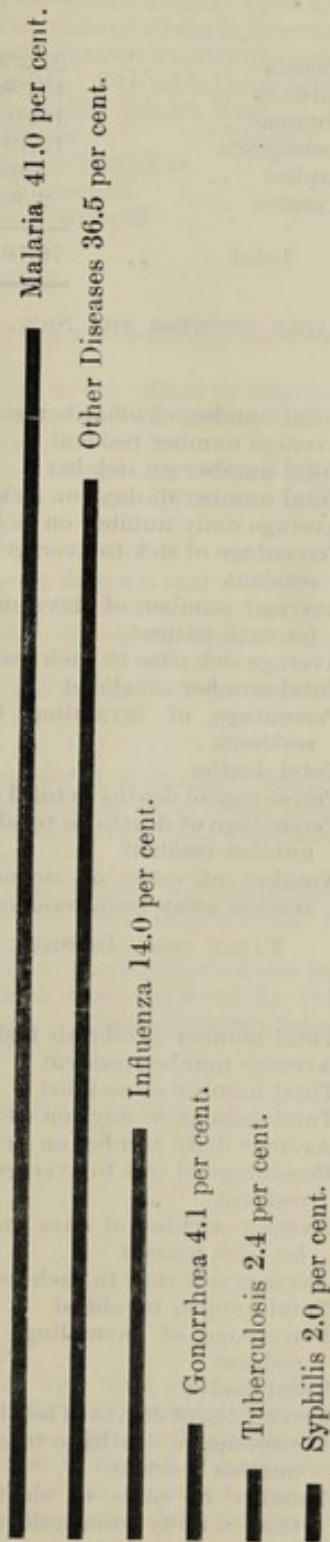
TOTAL CASES (a) & (b) 101,970.

1938.

## (a)—General Systemic Diseases



## (b)—Communicable Diseases





## (c) VITAL STATISTICS FOR 1938.

<i>District</i>	<i>Estimated Popu- tion on 30.6.38</i>	<i>Birth Rate per 1,000</i>	<i>Death Rate per 1,000</i>	<i>Infantile Mortality Rate</i>
Nicosia .. ..	121,653	30.6	14.3	120.2
Larnaca .. ..	47,433	26.0	13.9	122.0
Limassol .. ..	60,354	32.2	16.0	146.8
Famagusta .. ..	77,006	34.9	11.9	108.9
Paphos .. ..	44,802	29.5	17.8	189.4
Kyrenia .. ..	23,406	32.9	14.6	133.4
Total .. ..	374,654	31.2	14.5	130.9

FOR SIX PRINCIPAL TOWNS.				
Nicosia .. ..	27,330	22.0	16.0	72.9
Larnaca .. ..	13,380	18.2	15.9	135.2
Limassol .. ..	16,814	25.2	15.4	65.8
Famagusta .. ..	12,131	24.4	8.9	114.4
Paphos .. ..	4,804	18.5	12.4	89.8
Kyrenia .. ..	2,302	50.3	16.9	68.9
Total .. ..	76,761	23.1	14.5	87.3

TABLE SHOWING THE SICK, INVALIDING AND DEATH RATE OF EUROPEAN OFFICERS.

	1935	1936	1937	1938
Total number of officials resident ..	96	114	110	114
Average number resident .. ..	86.3	76	77.4	88.5
Total number on sick list .. ..	33	23	36	34
Total number of days on sick list ..	227	203	340	437
Average daily number on sick list ..	0.6	0.5	0.9	1.2
Percentage of sick to average number resident .. ..	33.3	17.4	46.5	38.4
Average number of days on sick list for each patient .. ..	6.7	8.8	9.4	12.8
Average sick time to each resident ..	2.6	2.6	4.3	4.9
Total number invalided .. ..	—	—	—	1
Percentage of invaliding to total residents .. ..	—	—	—	0.8
Total deaths .. ..	1	—	1	2
Percentage of deaths to total residents	1.0	—	0.9	1.7
Percentage of deaths to total average number resident .. ..	1.1	—	1.2	2.2
Number of cases of sickness contracted away from residence ..	—	—	—	—

TABLE SHOWING SICK, INVALIDING AND DEATH RATE OF CYPRIOT OFFICIALS.

	1935	1936	1937	1938
Total number of officials resident ..	1,847	1,836	1,836	1,960
Average number resident .. ..	1,842	1,780	1,763	1,931
Total number on sick list .. ..	1,154	1,058	1,313	1,461
Total number of days on sick list ..	6,814	5,642	6,245	6,691
Average daily number on sick list ..	18.6	15.7	17.1	18.2
Percentage of sick to average number resident .. ..	62.6	77.0	74.4	75.6
Average number of days on sick list for each patient .. ..	5.9	5.3	4.7	4.5
Average sick time to each resident ..	3.6	3.1	3.5	3.4
Total number invalided .. ..	23	20	6	5
Percentage of invalidings to total resident .. ..	1.2	1.1	0.3	0.2
Total deaths .. ..	4	12	6	5
Percentage of deaths of total residents	0.2	0.6	0.3	0.2
Percentage of deaths to total average number resident .. ..	0.2	0.6	0.3	0.2
Number of cases of sickness contracted away from residence ..	—	—	—	—



### III. HYGIENE AND SANITATION.

#### (A) GENERAL REVIEW OF THE WORK DONE AND PROGRESS MADE.

##### (1) ADMINISTRATION.

The Director of Medical Services is responsible for the general administration of the Health Services throughout the Colony and is assisted in this work by the District Medical Officers, Health Officers and the Sanitary Staff.

For administrative purposes the Colony is divided into six Districts and a British District Medical Officer is placed in charge of the Health and Medical Services and in carrying out Public Health Work in the rural parts of the Colony he is assisted by his Medical Officers and Sanitary Inspectors. The Public Health Services within the principal towns is carried out by the Municipal Medical and Sanitary Staff and every possible help and encouragement is being given to them by this Department in carrying out their respective duties. It is unfortunate, however, that not one of the Medical Officers employed by these Corporations has the necessary training in Public Health work and very few of their Sanitary Inspectors are qualified as such. This state of affairs is, however, being corrected and at least two Municipal Medical Officers will proceed to Athens during 1939 to take up studies leading to their degrees in Public Health. The table given below shows the permanent staff employed by this Department on Public Health work:—

1 Director of Medical Services ..	British.	3 Health Officers ..	Cypriot.
6 District Medical Officers ..	"	1 Chief Sanitary Inspector ..	"
1 Tuberculosis Officer ..	"	30 Sanitary Inspectors ..	"
1 Pathologist ..	"	1 Government Midwife ..	"
1 Chemist ..	"		

##### (II) GENERAL MEASURES OF SANITATION.

###### *Sewage Disposal.*

There has been no change in the system of sewage disposal and the conditions described in last year's Report remain unaltered.

The bore-hole latrines made by the Rockefeller Foundation in the village of Dheftera have now been brought into use. The inhabitants were rather slow in making use of this system and in some cases not until pressure was applied.

In accordance with the rules now being adopted by the Village Authorities every new building is required to provide an approved type of latrine. This will mean a great improvement as time goes on.

##### (III) SCHOOL HYGIENE.

The School Committees of principal towns have their own doctors, and all schools are also visited by Government Medical Officers and by Government and Honorary Dentists.

The new premises of the Government English School in Ayii Omoloyitadhes, Nicosia, are being completed.

There is yet no comprehensive school medical service and so this service remains inadequate, for the needs of the Colony.

##### (IV) INDUSTRIAL HYGIENE.

The development of the mining industries particularly those at Kalavastos, Mitsero and Limni is causing considerable overcrowding in the nearby villages. The Department is taking the necessary steps regarding the housing of labourers near the mines at Kalavastos and this is being brought into effect in a satisfactory manner.

Under the powers given by Law No. 30 of 1937 "The Trades and Industries (Regulation) Law" the Department has managed to bring about much improvement in respect of the sanitary and hygienic condition of factories and workshops.

Marked improvements have resulted and as a consequence of these measures one big factory is now constructing new premises, the plans of which were approved by this Department, and much has been done to improve the existing ones. The table given below shows the number of industries inspected and licensed in each District.

###### *Trades and Industries Inspected.*

<i>District</i>	<i>Licensed</i>	<i>Refused Licence</i>
Nicosia .. ..	469	68
Larnaca .. ..	168	3
Limassol .. ..	233	—
Famagusta .. ..	155	1
Paphos .. ..	40	2
Kyrenia .. ..	47	1
Total .. ..	1,112	75

##### (V) HOUSING AND TOWN PLANNING.

The Law relating to the construction of buildings, streets and wells on Arazi Mirié land has been further amended and it now provides for the District Medical Officers of each District to be a member of the local building committee. This will enable the Department to exercise considerable control on all new premises in respect of sanitation and general hygiene. As previously stated, the construction of an approved type of latrine or latrines is now being insisted upon for all new buildings and those which are



being structurally altered both in the towns and villages and it is hoped that considerable improvement in respect of proper disposal of excreta will thus be achieved in the near future. The Department's Medical and Sanitary Staff have inspected and reported on 1,161 buildings and 443 under construction and have been instrumental in assisting in the correction of many defects—this measure, is very useful and much appreciated by the majority of the owners.

The Municipality of Famagusta have completed and put into use a big public market : that of Limassol, an excellent abattoir, and Paphos, an up-to-date water-carried system of public latrines.

No drainage system exists in any town in the Colony and the need for a proper sewage disposal system is making itself felt more and more each year.

#### (B) MEASURES TAKEN TO SPREAD KNOWLEDGE OF HYGIENE & SANITATION.

##### HEALTH EXHIBITION.

The Department's Medical and Sanitary Staff, in close co-operation with the Child Welfare Committees of the six principal towns, and the Municipal Corporation of Limassol, held a very successful Baby Show and Health Exhibition in Limassol early in November. Many new posters and exhibits were displayed and about 6,000 people visited the exhibition in two days.

A few weeks before the exhibition, the Child Welfare Committees of the principal towns held their local shows in their respective towns and the winning babies were entered in the competition for the Neff and Cuff Challenge Shield and were brought to Limassol on the date of the exhibition. The Shield was awarded to the Larnaca Child Welfare Clinic as the babies from that District had obtained the highest score.

His Excellency the Governor presented prizes to the winning babies and His Worship the Mayor delivered an impressive speech concerning the general activities of the Infant Welfare Committees. There were about 2,000 persons present at the final show.

I wish to record the Department's thanks to all those ladies who have worked so hard in promoting child welfare work in this Colony and particularly to the Committees of Nicosia, Larnaca and Limassol.

The Infant Welfare work is being managed by voluntary workers financed partly by the Municipalities and by subscriptions and collections.

##### SCHOOL FOR SANITARY INSPECTORS.

On account of the September crisis, the School for Sanitary Inspectors which was due to be started in October had to be cancelled.

##### AIR RAID PRECAUTIONS.

The members of the Medical and Sanitary Staff who had attended a local course on Air Raid Precautions had later to train other members of the Department as well as volunteers in Air Raid Precautions work. There is now quite a number of men who have had satisfactory training in this Department.

##### HOTELS.

The Hotels Board of which the Director of Medical Services is the Chairman has done useful work. Much of the administrative and routine work connected with this service is being conducted by this Department.

The Hotels Law had been amended with a view to incorporating certain premises managed as pensions which were in reality hotels and also to discontinue licensing as hotels premises used as lodging houses. The Lodging Houses are now being dealt with under Law No. 14 of 1938 "The Hotels, Lodging Houses and Public Buildings (Regulation) Law."

##### HEALTH RESORTS.

The Committee appointed by His Excellency under the Chairmanship of the Director of Medical Services to draft legislation to better control Summer Resorts (referred to in last year's Annual Report) was responsible for the "Summer Resorts (Development) Law No. 7 of 1938" which was enacted early in the year. The Administrative Boards under the Chairmanship of the Commissioners, and of which District Medical Officers are members, met regularly and have been already responsible for many improvements in resorts.

A qualified Sanitary Inspector was stationed again on Troödos in order to supervise and assist the various Boards in respect of sanitary matters, but unless each Resort has its own qualified sanitary inspector and in certain places its own Medical Officer, it is not possible to achieve satisfactory results in respect of sanitation.

The problem of providing a proper sewage system for Platres calls for urgent action. On account of poor absorption of effluents, the lack of available free space around certain large buildings, and the increasing number of cesspits and septic tanks, the drainage from some septic tanks or absorption pits has been noticed to outcrop in the form of seepage during the height of the summer season.

##### WATER SUPPLIES.

In addition to routine inspections, the Department, through its Medical and Sanitary Staff, have inspected and reported on 108 new water supplies. 123 samples for chemical and 187 for bacteriological analysis were submitted to the Government Laboratory.

The water supplies of Nicosia, Larnaca and Kyrenia require careful consideration. These water supplies are obviously liable to contamination under existing conditions.



#### IV. PORT HEALTH WORK AND ADMINISTRATION.

The subjoined table shows the number of visits made by the Medical Staff to vessels arriving at Cyprus Ports and Aerodromes during 1938 :—

District	Aeroplanes	Steamships	Sailing Ships	Total
Nicosia .. ..	17	—	—	17
Famagusta .. ..	3	189	153	345
Zygi .. ..	—	3	—	3
Limassol .. ..	2	219	167	388
Larnaca .. ..	23	159	106	288
Karavostasi .. ..	—	130	24	154
Paphos .. ..	—	20	107	127
Kyrenia .. ..	—	6	5	11
Karpas " Boghaz " .. ..	—	1	—	1
Polis .. ..	—	4	—	4
Total .. ..	45	731	562	1,338

Note.—Visits of His Majesty's Navy and Aircraft have not been recorded.

#### V. MATERNAL, CHILD WELFARE AND SOCIAL HYGIENE.

##### MATERNAL WELFARE.

The training of midwives continued during the year. There is one Government Midwife in Nicosia and two Honorary Midwives stationed at Limassol and Famagusta.

Dr. H. Symeonides conducted two courses of lectures from 1st December, 1937, to the 15th January, 1938, and from 1st October to 30th November, 1938. Examinations were held on the 15th February and the 1st December, 1938. 23 pupils attended the classes and all passed the local examination.

The Government Midwives with their pupils attended to 340 confinements during the year as follows :—

Nicosia .. 178 ;      Limassol .. 108 ;      Famagusta .. 54.

Under the Midwifery Law of 1932, one midwife holding a diploma of a recognized school and 23 trained in Cyprus were registered.

##### Cases—

##### NICOSIA MATERNITY WARDS.

(1) Normal .. ..	330
(2) Complicated .. ..	92
Total 422	

##### Deaths—

(1) of Mothers .. ..	10
(2) of Infants born alive .. ..	15
(3) Still births .. ..	55

##### Sex\*—

Male .. ..	231
Female .. ..	203

##### Operations—

Instrumental delivery .. ..	43
Hysterectomy due to ruptured uterus (on admission) .. ..	—
Removal of placenta .. ..	4
Cæsarian section .. ..	15

##### Diseases and complications affecting mother—

Heart disease .. ..	4
Albuminuria .. ..	11
Anæmia .. ..	1
Lacerated Perineum .. ..	34
Placenta Praevia .. ..	20
Post Partum Haemorrhage .. ..	7
Ante .. ..	4
Pneumonia .. ..	1
Scarlet Fever .. ..	1

##### Diseases and complications affecting the infant—

Asphyxia .. ..	15
Fractured Humerus .. ..	2
Deformed Feet .. ..	—

##### CHILD WELFARE.

Child Welfare Clinics have, thanks to energetic committees, been functioning usefully in all the six principal towns and the work of these clinics steadily increases.

\* Includes twins.



## VI. HOSPITALS AND DISPENSARIES.

### HOSPITALS.

There are Government Hospitals in Nicosia and Limassol and State-aided Hospitals in Larnaca, Famagusta, Paphos and Kyrenia. The accommodation in these Hospitals is 336 beds and 23 cots. The total number of admissions during the year was 6,520 as compared with 6,088 during 1937.

### MENTAL HOSPITAL.

The attendances are increasing to such an extent at the Mental Hospital that it will soon be again necessary to provide extra accommodation. Three new blocks, two in the male and one in the female division, were erected during the year. On the 31st of December, 1937, there were 217 patients (145 males and 72 females) confined there, while on the 31st December, 1938, 228 patients (149 males and 79 females) were receiving care and treatment. 53 patients were admitted during the year, of these 36 were males and 17 females. 17 of these were cases re-admitted. Discharges totalled 32 made up as follows :-

Discharges recovered .. .. .	22
Discharges improved .. .. .	9
Discharges not improved .. .. .	1 an imbecile.

There were 9 deaths during the year, particulars of which are given below :-

<i>Register No.</i>	<i>Age</i>	<i>Sex</i>	<i>Form of Mental Disorder</i>	<i>Date of Admission</i>	<i>Cause of Death</i>
M. 433 ..	22 ..	M. ..	Mania .. .. .	26. 1.1937 ..	Heart failure from exhaustion.
M. 472 ..	40 ..	M. ..	General paralysis of the Insane .. .. .	24.12.1937 ..	Epileptiform attacks.
F. 13 ..	48 ..	F. ..	Epileptic Dementia .. .. .	5. 8.1920 ..	Status Epilepticus.
M. 479 ..	52 ..	M. ..	General paralysis of the Insane .. .. .	16. 3.1938 ..	Epileptiform attacks.
M. 380 ..	33 ..	M. ..	Epileptic Imbecility .. .. .	13. 8.1935 ..	Status Epilepticus.
F. 180 ..	23 ..	F. ..	Acute Confusional Psychosis .. .. .	12. 7.1938 ..	Collapse.
M. 8 ..	68 ..	M. ..	Periodic Confusional Psychosis .. .. .	8.12.1906 ..	Collapse during attack.
F. 183 ..	58 ..	F. ..	General paralysis of the Insane .. .. .	8.10.1938 ..	Collapse.
F. 2 ..	71 ..	F. ..	Periodic Confusional Psychosis .. .. .	12. 3.1908 ..	Exhaustion.

The general health of the patients was good during the year. No serious physical illnesses occurring. 62 cases of injury are recorded, 9 self-inflicted, 24 minor injuries inflicted by other patients, 29 resulted through accidental falls in epileptics. With the exception of three, all injuries were slight. The three more serious were fractures, two of the humerus and one of the femur.

Patients as far as possible were kept amused and occupied during the year. The work given to patients, it is found, reacts favourably on their mental condition. Many patients helped the attendants in their daily work of nursing, cleaning, gardening, cooking, etc.

Cyprus is particularly favourable for the treatment of mental diseases in that quiet and harmless patients can be kept in the open air all day long. When out of doors, they amuse themselves under supervision. Smokers are provided with cigarettes.

Church services are given at frequent intervals and Christmas and the New Year are celebrated by extra food, Christmas trees, presents, etc.

### LEPER FARM.

The proposed scheme for kitchens and dining-rooms at the Leper Farm has had to be deferred until 1940 for financial reasons. Plans have been prepared and when completed the installation will be highly satisfactory.

The new system is not altogether popular with the inmates, who prefer a cash allowance, but unfortunately this is not always devoted to its legitimate object, and in consequence the patients do not get the properly balanced diet which is such an essential part of their treatment. It is, however, certain that once the new scheme is instituted it will meet with the approbation of most of the inmates.



*Leper Farm.—Statistics for 1938.*

Number of lepers in the Farm on 31st December, 1937	..	..	104	
Admitted during 1938	..	..	18	
			<hr/>	122
Paroled in 1938	..	..	6	
Died	..	..	3	
			<hr/>	9
Remaining on 31st December, 1938	..	..	..	113

## SANATORIUM.

The work of the Athalassa Sanatorium has been given previously under another heading.

## AIDED HOSPITALS.

The four aided Hospitals at Famagusta, Larnaca, Paphos and Kyrenia continue to do good work.

The number of admissions and particularly of out-patients has been maintained. The number of major operations also shows an increase.

To see what is possible when an efficient Cypriot Medical Officer and a locally-trained Cypriot Matron work in harmony one had but to visit the Paphos-aided hospital during the year under review. Some 4 years ago this hospital was continually in financial difficulties and a source of much trouble to both the Commissioner and the Director of Medical Services. As a result of the conscientious work of the two officers mentioned above this situation has entirely changed and not only is the hospital competently staffed and maintained without difficulty but a surplus has been available for extension of the hospital and the purchase of considerable equipment such as a modern operating table, a shadowless lamp, dental and surgical instruments.

The various hospital committees have worked to good effect and as a result a high standard of efficiency has resulted.

## RURAL HOSPITALS.

Since the Village Authorities at Lysi, in the Famagusta District, constructed their own rural hospital, other communities tend to follow suit and it is possible that three similar hospitals will be erected in the near future.

With the 7 hospitals already established in rural communities over the Island 50 extra beds are made available for cases which otherwise would occupy beds in Government or State-aided hospitals.

## DENTAL SERVICE.

Total number of attendances at schools, Hospital Dental Clinics, Central and Athalassa Prisons, Mental Hospital, Sanatorium and Leper Farm, was 36,800. 16,584 extractions, fillings, and other treatment were carried out.

A Dental Section was added to the Lysi Rural Hospital during March, 1938, under the direction of Dr. Sadi Hilmi, of Larnaca, who attends one day each week. Details of the attendances and the work done are shown in the following table:—

	<i>Nicosia &amp;</i>						
	<i>Kyrenia</i>	<i>Larnaca</i>	<i>Paphos</i>	<i>Famagusta</i>	<i>Limassol</i>	<i>Lysi</i>	
Consultations	6,643	3,504	3,111	2,162	1,965	2	
Pyorrhoea	508	62	78	321	18	8	
Diseases of mouth	461	66	83	129	9	28	
Operations	6	—	1	—	—	—	
Extractions	4,167	2,381	1,744	1,417	1,931	74	
Fillings	1,775	86	225	105	122	51	
Temporary fillings	775	391	340	540	454	6	
Vulcanite plates	18	4	—	—	—	—	
Scaling	731	3	164	81	15	31	
Dental Prosthetic work	4	—	—	—	—	—	
Total	15,088	6,497	5,746	4,755	4,514	200	

Early in December, a well-equipped School Dental Clinic was opened at Limassol for Orthodox-Christian Elementary School-children. The clinic was equipped by the Limassol School Committee and Dr. Kokos Polydorides appointed as Dental Surgeon to the Clinic. There is good reason to believe that Limassol's lead will be followed by other School Authorities in the principal towns of the Island and this is borne out by the fact that Nicosia and Larnaca Moslem School Committees and Larnaca and Famagusta Orthodox-Christian Committees intend to order equipment for similar clinics at an early date.



During the year the services of the five Honorary Dentists have been extended to 541 villages and their travelling allowances increased for this purpose. Medical Record Cards, including Dental Charts, are now to be found in the above schools for most children.

6,379 elementary school children were examined and only 1,215 were found to be free from carious teeth. The following table shows the percentage of sound and carious teeth in children examined :—

<i>Deciduous teeth :</i>				<i>Permanent teeth :</i>			
Sound teeth .. .. .	17%			Sound teeth .. .. .	80%		
Decayed teeth .. .. .	83%			Decayed teeth .. .. .	20%		

The full-time Government Dental Officer, Dr. Marcellos, is directly responsible, through his enthusiasm and good work, for the marked increase of dental service throughout the Island.

#### EYE CLINICS.

The total work done in connection with these institutions both at the Hospitals and by the Travelling Oculists is recorded in the table of diseases.

There are three travelling oculists on the staff who attended the following patients during the year :—

	<i>Limassol-Paphos</i>	<i>Nicosia-Kyrenia</i>	<i>Famagusta</i>
New cases .. .. .	5,800	2,684	2,876
Secondary treatments .. .. .	8,768	5,352	6,741
Trachoma .. .. .	764	283	553
Operations .. .. .	31	46	81

The Honorary Oculists attended the following patients :—

	<i>Larnaca</i>	<i>Nicosia</i>	<i>Limassol</i>
New cases .. .. .	2,521	1,304	1,283
Secondary treatments .. .. .	7,365	884	7,176
Trachoma .. .. .	761	294	481
Operations .. .. .	132	2	30

#### STATEMENT OF THE AMOUNT OF WORK PERFORMED YEARLY AT THE SIX DISTRICT HOSPITALS AND RURAL HOSPITALS FOR THE YEAR 1938.

District	In-patients	Day-cases	% Deaths to No. of in-patients	Dressings	Major operations	Maternity cases	Number of beds	Number of cots.
Nicosia .. .. .	2,049	31,249	8.8	28,082	986	135	111	4
Limassol .. .. .	807	12,114	8.3	4,365	558	67	54	4
Larnaca .. .. .	953	13,940	5.1	3,566	377	56	56	2
Famagusta .. .. .	753	8,178	4.6	3,193	260	86	42	4
Paphos .. .. .	616	4,971	5.5	1,557	85	14	36	7
Kyrenia .. .. .	591	7,398	1.5	5,641	62	68	33	2
Mental Hospital .. .. .	—	—	—	—	—	—	—	—
Sanatorium .. .. .	86	18,194	47.6	—	—	—	53	—
Leper Farm Hospital .. .. .	88	1,231	3.4	—	2	—	12	—
<b>Total .. .. .</b>	<b>5,943</b>	<b>97,275</b>	<b>7.0</b>	<b>46,404</b>	<b>2,330</b>	<b>426</b>	<b>397</b>	<b>23</b>
<i>Rural Hospitals :</i>								
Morphou .. .. .	107	593	0.9	1,263	—	—	6	—
Klirou .. .. .	100	914	1.0	332	—	1	5	—
Pedhoulas .. .. .	32	293	3.1	119	—	24	4	—
Agros .. .. .	60	755	1.6	111	—	—	7	—
Lysi .. .. .	85	1,004	—	419	—	—	8	—
Yialousa .. .. .	44	250	—	298	—	1	5	—
Polis .. .. .	226	1,859	0.8	664	—	1	6	—
<b>Total .. .. .</b>	<b>654</b>	<b>5,668</b>	<b>0.9</b>	<b>3,206</b>	<b>—</b>	<b>27</b>	<b>41</b>	<b>—</b>
<b>Grand total .. .. .</b>	<b>6,597</b>	<b>102,943</b>	<b>6.4</b>	<b>49,610</b>	<b>2,330</b>	<b>453</b>	<b>438</b>	<b>23</b>

### VENEREAL DISEASES CLINICS.

The five Venereal Diseases Clinics staffed by five Medical Officers, 11 male and 10 female attendants, established 11 years ago, continue to do useful work throughout the Colony. During 1938, 4,348 patients (2,524 male and 1,824 female) were seen in all clinics. Of these 2,502 were new patients and 1,846 old patients. 602 of the old patients were suffering from both gonorrhoea and syphilis.

Of the above, 2,285, both old and new, presented from Nicosia District.

The actual number of treatments given to the above cases, when computed as daily attendances, totalled 130,954 as follows:—

<i>Nicosia</i>		<i>Larnaca</i>		<i>Limassol</i>		<i>Famagusta</i>		<i>Paphos</i>
—		—		—		—		—
45,553	..	16,711	..	38,563	..	32,663	..	6,464

In addition to the above, 341 non-specific diseases of the skin were treated, and 377 patients were examined and found free from Venereal Diseases.

1,725 patients suffering from syphilis were given 18,435 injections as follows:—

Arsenic 6,996, Bismuth 7,934, Mercury 3,082, Tryparsamide 347, and 76 injections for fever therapy. 268 Dark Field examinations were made for *Spirochaeta Pallida* of which 79 were positive. 3,367 Blood Wassermann examinations were carried out and 675 were returned positive, *i.e.* 20% compared with 29.9% in 1937. 70 Cerebro-Spinal fluid examinations were made in the Venereal Diseases Clinic, Nicosia.

2,183 patients suffering from gonorrhoea received treatment during the year. In this treatment Sulphanilamide P. and M. & B. 693 were utilized and results of this treatment, which is still on an experimental basis, will be the subject of a Departmental report or a paper at a later date.

### PROPHYLACTIC CENTRES.

Twelve Prophylactic Centres functioned during the year. Six were run as private centres, six by the Municipalities—*i.e.* one in each District Town and one centre for the mining area at Lefka. Government assists the Municipal Prophylactic Centres by the supply of drugs and dressings and certain equipment. Attendances were as follows:—

<i>Nicosia</i>		<i>Larnaca</i>		<i>Limassol</i>		<i>Famagusta</i>		<i>Paphos</i>		<i>Total</i>
—		—		—		—		—		—
35,907	..	6,913	..	27,050	..	5,551	..	3,850	..	79,271

Only 17 patients out of the 737 have developed venereal disease after having received prophylactic treatment.

The time they received prophylactic treatment after exposure was as follows:—

*Nicosia* : 4 patients—

One case  $\frac{1}{2}$  hour.

One case 3 hours.

One case 12 hours.

One case 16 hours.

*Larnaca* : 6 patients—

3 cases 10 minutes.

3 cases  $\frac{1}{2}$  hour.

*Famagusta* : 1 patient, 10 minutes.

*Limassol* : 6 patients—

2 cases  $\frac{1}{2}$  hour.

4 cases 6 hours.

*Paphos* : Nil.

### PROPAGANDA.

The campaign against Venereal Diseases was continued throughout the year by means of lectures and films in the towns and villages and by the distribution of pamphlets.



Of the above, 1,082 cases have been apparently cured (859 male, 223 female) as follows :—

CASES OF VENEREAL DISEASES.

The distribution of the 4,186 Venereal Disease Cases treated in the Clinics was as follows :—

	Nicosia			Larnaca			Limassol			Famagusta			Paphos			Total		
	Total cases	M.	F.	Total cases	M.	F.	Total cases	M.	F.	Total cases	M.	F.	Total cases	M.	F.	Total cases	M.	F.
Gonorrhoea .. ..	1,034	456	578	286	141	145	332	191	141	331	198	133	136	71	65	2,139	1,057	1,082
Syphilis .. ..	878	487	391	169	92	77	338	222	116	119	28	91	42	9	33	1,725	1,017	708
Soft Chancre .. ..	137	133	4	13	10	3	34	31	3	38	32	6	9	8	1	231	214	17
Other Venereal Diseases	43	37	6	15	11	4	16	13	3	16	14	2	1	1	—	91	76	15

# VII. CONTROL OF PROFESSIONAL PRACTICE.

(a) *Medical Council*.—The Medical Council met on one occasion during the year.  
 (b) *Medical Practitioners*.—19 Medical Practitioners were registered during the year with qualifications from the following schools : Athens 12 ; London 3 ; Dublin 1 ; Paris 1 ; Pisa 1 ; Montpellier 1.

(c) *Dental Practitioners*.—3 Dentists were registered : 2 from the University of Athens and 1 from the University of Istanbul.

(d) *Druggist and Pharmacists*.—2 were registered : all local.

(e) *Control of Dangerous Drugs*.—This is not satisfactory and the laws and regulations dealing with the matter of control are being revised and strengthened.

The number of permits issued for the local transfer of dangerous drugs between authorized persons is 364.

During the year 3 persons were prosecuted by the Police for offences in connection with dangerous drugs all of whom were convicted, namely :—

(1) Possession of raw opium by a sailor—

*Quantity* : Two okes and 37 drams of raw opium.

*Penalty* : £20 fine.

*Disposal*: The opium was confiscated by order of the Court and destroyed by the Police.

(2) Two Chemists were dealt with by the Courts for improper dispensing of dangerous drugs prescriptions.

In the one case the accused was sentenced to pay a fine of £5 while in the other case the accused was fined £1.

TABLE SHOWING THE AMOUNT OF DANGEROUS DRUGS FOR WHICH LICENCES TO IMPORT HAVE BEEN GRANTED DURING THE YEAR 1938.

Name of Drug.	Quantity		
	No.	Kgs.	Litres
PURE DRUGS.			
Methylmorphine (Codeine) .. ..	—	0.210000	—
Medicinal Opii .. ..	—	0.239175	—
SALTS.			
Cocaine Hydrochlor .. ..	—	0.955448	—
Codeine Phosphas .. ..	—	1.140000	—
Ethylmorphine Hydrochlor (Dionine) ..	—	0.13500	—
Morphin. Hydrochlor. . . .	—	0.105000	—
Dihydrocodeinone Bitartrate (Dicodide) ..	—	0.00100	—
PREPARATIONS.			
Amp. Morphine Hydrochlor 0.01 ..	3,200	—	—
" " " 0.02 ..	4,330	—	—
" " " 0.01 ..	—	—	—
" cum Atrop. Sulph. $\frac{1}{2}$ mlg. ..	75	—	—
" " " 0.02 ..	—	—	—
" cum Atrop. Sulph. $\frac{1}{2}$ mlg. ..	50	—	—
" Atropomorphine 0.01 ..	100	—	—
" Dicodide 0.001 .. ..	150	—	—
" " 0.002 .. ..	150	—	—
" Dilaudid 0.002 .. ..	40	—	—
" Pantopon 0.02 .. ..	487	—	—
" Sedol .. ..	904	—	—
Extr. Cannab. Indica .. ..	—	0.010000	—
" Cocae Sic. .. ..	—	0.050000	—
" " Liq. .. ..	—	—	1.500000
" Fluid pour Sirop Diacode ..	—	—	0.250000
" Opii Sic. .. ..	—	0.275	—
Gouttes Nican (boxes $\times$ 30 grams.) ..	30	—	—
Liq. Morphine Hydrochlor .. ..	—	—	15.000000
Pantopon Pulv. .. ..	—	0.00500	—
" Solution 2% .. ..	—	—	0.050000
Syr. Codein. Phosph. .. ..	—	—	10.00000
Sirop Pantopon " Roche " ..	—	—	2.200000
Tab. Dicodide 0.005 .. ..	100	—	—
" Gelonida Anti-neuralgia ..	400	—	—
" Pantopon 0.02 .. ..	100	—	—
" Veganine. . . .	1,200	—	—
Tinct. Cannab. Indica .. ..	—	—	1.550000
" Cocae .. ..	—	—	0.750000
" Chloroform et Morphine Co ..	—	—	2.000000
" Opii .. ..	—	—	2.950000
" " Crocata (Laudanum de Sydenham) .. ..	—	—	8.154000



## VIII. METEOROLOGY.

## METEOROLOGICAL RETURN FOR THE YEAR 1938.

Months	Temperature						Rainfall		Winds	Average force (0-10)	Remarks
	Solar Maximum °F	Minimum on grass °F	Shade maximum °F	Shade Minimum °F	Range °F	Mean °F	Amount in inches	Degree of humidity %	General directions		
January .. ..	129	28	65	33	32	49.00	2.94	76.61	SE.	2.54	Very cold weather
February .. ..	131	25	65	31	34	48.00	2.33	74.04	NW.	3.64	Very cold weather
March .. ..	145	25	74	31	43	52.50	0.76	62.76	SE.	4.78	Cold weather
April .. ..	153	30	90	35	55	62.50	1.91	62.52	NW.	3.13	Fair weather
May .. ..	159	41	96	43	53	69.50	1.71	52.76	NW.	3.50	Hot weather
June .. ..	160	53	103	59	44	81.00	0.03	47.65	NE.	2.75	Very hot weather
July .. ..	163	61	106	67	39	86.50	0.10	53.81	NW.	2.65	Very hot weather
August .. ..	167	59	108	66	42	87.00	0.95	57.22	NW.	2.86	Very hot weather
September ..	160	48	105	54	51	79.50	1.53	61.21	NE.	2.54	Hot weather.
October .. ..	153	46	91	52	39	71.50	1.43	62.73	NW.	2.62	Hot weather.
November ..	140	36	81	42	39	61.50	1.10	78.64	E.	3.00	Cold weather.
December ..	135	31	72	38	34	55.00	4.62	80.92	SE.	2.83	Very cold weather
Means .. ..	149.58	40.25	88.00	45.92	42.08	66.95	1.54	64.24	NW.	3.05	

## IX. SCIENTIFIC.

The following Appendices are included :—

- A.—Work of the Rockefeller Foundation in Cyprus [1. Malaria Report.  
2. Engineering Report].
- B.—Report of the Specialist (Surgeon).
- C.—Report of the Government Pathologist.
- D.—Report of the Government Chemist.
- E.—Report of the Honorary Social Worker.

ERROLL A. NEFF,

*Director of Medical Services.*

## APPENDIX A.

ANNUAL REPORT OF THE WORK OF THE INTERNATIONAL HEALTH DIVISION  
OF THE ROCKEFELLER FOUNDATION IN CYPRUS, 1938.

BY J. C. CARTER.

## PERSONNEL.

Few changes occurred in the personnel of the Bureau during the year. The posts of one Chainman and one Laboratory Assistant were temporarily abolished during the year. The staff, in addition to the representative of the International Health Division, consisted of the following:—

Dr. M. Theodoulou, *Medical Officer*,  
Mr. A. McLaughlan, *Assistant Engineer* (on study leave from 1st August),  
Miss Kamer Yusuf, *Technician*,  
Miss Eleftheria Tomazou, *Technician*,  
Stellios Sotiriou, *Sanitary Inspector*,

whose salaries were paid wholly, or in part, by the Cyprus Government, and

Miss Margaret Passingham, *Secretary*,  
Agathocles Neocleous, *Sanitary Inspector*,  
Homer Proestos, *Sanitary Inspector*,  
C. Vincent, *Chainman* (resigned March 1st),  
Savvas Aresti, *Laboratory Assistant* (resigned June 1st),

who were paid from a budget provided by the International Health Division.

Mr. Mehmed Aziz, Chief Sanitary Inspector, and Miss Melahat Houloussi, Technician, both of the Medical Department, continued to assist the Bureau in a part-time capacity.

## FELLOWSHIPS.

Mr. A. McLaughlan, an Assistant Engineer in the Public Works Department seconded to the Medical Department since 1936, was granted a fellowship and proceeded to the United States to take up his studies in September. Upon completion of his course Mr. McLaughlan is expected to return to a permanent post which will be created for him in the Medical Department.

## THE MALARIA SEASON.

In contrast to the previous year, 1938 is regarded as having been a season of low malaria transmission. It is generally agreed that this is the case though no explanation has been advanced which satisfactorily explains why it was so.

Supporting this view are, the parasite indices calculated from the autumn surveys which show a considerable reduction in all Districts except one; a decrease in the parasite index among infants born subsequent to the 1937 transmission season; adult mosquito catches which were from 50.0 to 75.0 per cent. lower in most areas; the number of patients applying at hospitals and dispensaries for treatment which dropped from 17,979 in 1937 to 11,654 in 1938; and from opinions expressed by practising physicians and the rural population.

On the other hand the spleen index for the entire Island showed an increase of 11.0 per cent. over 1937; and the sporozoite index increased from 0.7 per cent. in 1937 to 1.3 per cent. in 1938.

A study of the data collected from all sections of the Island and compared with the 1937 returns reveal that the spleen rate advanced from 32.7 to 43.7 per cent., and that the parasite rate fell from 41.1 to 30.8 per cent. This is just the reverse of what occurred in 1937 when the spleen rate showed a decrease and the parasite rate an increase. The sharp increase in the parasite rate in 1937 no doubt partially explains the rise in the 1938 spleen rate.

A comparison of the spleen and blood surveys made in 1938 with those of 1937 shows that in all Districts but one, the spleen rate increased. The increases noted were: Nicosia District, 15.2 per cent.; Larnaca District, 20.4 per cent.; Limassol District, 9.7 per cent.; Famagusta District, 7.2 per cent.; and Paphos District, 14.7 per cent. In the Kyrenia District the spleen rate fell slightly, from 69.2 to 68.2 per cent. In the Nicosia, Limassol, Famagusta, Paphos and Kyrenia Districts the parasite index decreased by 18.0, 9.4, 5.5, 4.8 and 16.1 per cent., respectively, while in the Larnaca District the index increased 3.5 per cent. These rates apply in both the protected and unprotected areas.



An examination of the data according to anopheles species areas shows little variation. The upward trend of the spleen rate and the downward trend of the parasite rate is remarked equally, whether the vector is *superpictus* or *clutus*.

The total rainfall in all Districts in 1938 exceeded that of 1937, and was more widely distributed through the year. Rain fell during every month of the year in one District (Limassol) in 1938, whereas in 1937 there were three months in which no rain fell in any part of the Island. The rainfall figures for 1938, therefore, appear to have been favourable to mosquito production.

The mean temperature in the Island for the year 1938 was 66° F. as compared to 69° F. in 1937. The spring of 1938 was markedly late, cold weather persisting into late May. This fact undoubtedly delayed the onset of the malaria season for a month or more. However, once hot weather had set in and as the summer advanced, temperatures maintained their usual steady course and so closely approximated those of 1937 and previous years that the difference was negligible.

It is felt, therefore, that an explanation for the low malaria transmission during the 1938 season will have to be found elsewhere than in any apparent meteorological factor.

Adult mosquito catchings in 1938 were much less than in 1937. This applies in the unprotected as well as the protected areas. The decline was more marked where *superpictus* predominate but catches of both species were greatly reduced.

The sporozoite index, however, increased significantly. The records of mosquito dissections reveal that the percentage of glands found infected in 1938 was 1.6 per cent. as compared to 0.8 per cent. in 1937. Stomach infections increased from 0.3 to 0.7 per cent.

#### MALARIA AND MOSQUITO SURVEYS.

*Spleen and Blood Surveys.*—Spleen and blood indices were taken in 144 villages during the year in which approximately 6,000 persons, principally children of school age, were examined. 126 of these villages are included in the routine autumn survey while the remainder were examined for special purposes. All spleen examinations were made by Dr. M. Theodoulou.

*Adult Anopheles Catches.*—In order to maintain a check on the anophelism in the various Districts and to evaluate the effectiveness of anti-larval activities, regular weekly and bi-monthly catches of adult anopheles were conducted in pre-determined stations from February to December. With the exception of one or two small areas (notably Syrianokhori) the catches fell far below those of 1937. In the *clutus* zone of the Limassol area a large reduction in the number of mosquitoes in the catching stations was noted. It was learnt, however, that adult mosquito destruction by the use of insecticides was practised throughout the year in several of the villages in the area. This no doubt seriously affected the records in this area.

#### MALARIA CASES TREATED AT GOVERNMENT HOSPITALS AND DISPENSARIES.

Table III contains data regarding malaria cases treated at Government Hospitals and Dispensaries during 1938. These figures support the view that the past season was one of reduced malaria transmission. 11,654 patients were treated for malaria at 21 hospitals and dispensaries, as against 17,979 in 1937.

#### SEASONAL TRANSMISSION OF MALARIA.

*Monthly Infant Surveys.*—This study, began in 1937 for the purpose of gathering information regarding seasonal transmission of malaria, was continued during 1938 in a different group of villages. In 1937, infants born after 1st November of the preceding year were included in the survey, whereas in 1938 all infants born prior to 1st December of the preceding year were excluded. This was done in order to exclude, if possible, all possibility of an infection having occurred before the end of the previous transmission season. However, it is now thought that infections can, and probably do occur to a limited extent, in any month during the year. The surveys were begun in March and continued through November.

A report by Dr. M. Theodoulou on the survey and his analysis of the data collected is presented below.

With a view to ascertaining the seasonal transmission of Malaria in Cyprus, a monthly Survey was regularly carried out from March to November, in 25 selected villages (8 in Tilliria, *superpictus* area; 3 in Solea, *superpictus* area; 7 in Morphou, *clutus* area; 5 in Larnaca, *clutus* area; and 2 in Lythrodhonda, *superpictus* area).

An extra infant malaria survey was carried out in different areas for comparison purposes, in the uncontrolled Tilliria area, in the controlled Kyrenia coast and in the controlled Paphos area.

A total of 1,366 babies were examined in all areas all born after the 1st December of the previous year 1937, that is subsequent to the transmission period of the previous year.



Only blood findings are considered. Enlargement of spleen in babies, especially the young ones, may be due to many other diseases as well as to malaria infection.

Furthermore palpable spleens are not uncommonly encountered in quite healthy infants. So infant spleen indices, although running parallel but at a higher rate to the parasite indices, have but little importance.

Every one engaged in infant malaria surveys knows the many difficulties which arise. The mothers do not easily allow repeated blood taking from their babies. Had the Splenic Index alone been a reliable basis for the determination of the seasonal transmission of malaria, the work would have been much easier. Yet to attract the mothers and convince them that this survey would be the starting point for a general improvement in the health of their babies in particular and the area in general, Child Welfare Work was, at the same time, carried out.

Analysing the findings of the infant survey from the table containing all areas and all species of anopheles, it is seen that the first baby found infected with malaria parasites occurred in the first month of the survey on 8th March. This baby was born on 27th December of the previous year 1937 in Pomos, Tilliria area, where *A. superpictus* is the prevailing mosquito.

There can be little doubt that this baby was infected during the malaria season under review, as its birthday (27th December) was by far subsequent to the previous malaria season of 1937.

One may maintain that this infection could have been transmitted by an overwintering mosquito, or caused accidentally during the birth, that is being a congenital infection. But the "Sporozoite Rate Record" shows that infected mosquitoes with oocysts were found from the first days of February.

As newly-infected mosquitoes (with oocysts) were found in the first days of February, it seems very probable that the first infection was due to a mosquito bite and took place during the malaria season under review. The outstanding feature of these findings is that malaria transmission may start in this country as early as February. From the public health point of view this finding has a considerable bearing on the control of malaria.

Going further over the same table "Infant Malaria Survey All Areas" it is seen that the highest percentage of babies infected with parasites occurred in August when 6.9 per cent. of all examined were positive. The general positive percentage is 3.7 per cent.

From the comparative results of blood findings in *A. superpictus* and *A. elutus* areas, it is seen that *elutus* areas present a higher positive percentage as compared with that of the *superpictus* areas, being 5.1 per cent. and 3.3 per cent. respectively.

Contrary to what might be expected, the infection in *A. elutus* areas started in July and was increasing regularly till November when 10 per cent. of all babies examined were blood positive. The infection in *A. superpictus* areas started as early as March, presented its peak in August and dropped from September to a certain point where it remained till the end of the year.

The higher infectivity of *A. elutus* could be explained by the bionomic habits of this species which is more anthropophilic than the *superpictus*. This view is corroborated by the "Anopheline catching Record" showing a higher percentage of *A. elutus* caught in houses (25.5 per cent.) as compared with that of *superpictus* (5.6 per cent.).

It should, however, be pointed out that none of the *elutus* areas under survey was specially controlled, as was the case for some *superpictus* areas. From the comparative results of the Infant Malaria Survey, 1937 and 1938, it is seen that the rates of 1938 are by far lower than in 1937, being 15.7 per cent. and 3.7 per cent. respectively. As a matter of fact there was a lower malaria transmission during the malaria season under review. In an attempt to explain the factors which were responsible for the marked decrease of malaria transmission in Cyprus this year, it is necessary to state that the work of controlling the disease, especially in some selected areas, was remarkably successful. But besides this excellent work some undetermined epidemiological or climatological factors might have played a part. The analysis of the blood findings in the specially-controlled Tilliria area and the uncontrolled Tilliria area, which are equally malarious, supports this view. It is noteworthy that whereas in the controlled area 4 babies out of 56 were parasite positive, giving 7.1 per cent. in the uncontrolled area, which was taken for comparison only, 4 babies out of 42 were positive, giving 9.5 per cent. The relatively small difference between the results of the two areas indicates that some undetermined factors were responsible, to some extent, for the lower malaria transmission this year.



*Sporozoite Indices.*—Mosquito dissections were carried out from February to December. The result of these dissections appear in Table VII where it is seen that 5,534 mosquitoes of the three prevalent species were dissected and examined. This included 3,017 *clutus*; 2,239 *superpictus* and 278 *bifurcatus*. The infected percentage of the combined species was: glands, 1.6 per cent.; stomachs, 0.7 per cent. This represents a marked increase over 1937 when only 0.8 per cent. infected glands and 0.3 per cent. infected stomachs were found.

It is also of interest that infected mosquitoes were found on 7th, 8th and 9th February, which is at least six weeks earlier than has previously been reported. The first of these, an *clutus* collected at Asomatos (Limassol District) on 7th February, was sporozoite positive as was a *superpictus* collected at Akrotiri (Limassol District) on 8th February. Both the gland and stomach of a *superpictus* collected at Trimithi (Kyrenia District) on 9th February were infected. This indicates that natural infection of anophelines can and does occur in Cyprus throughout the year.

Dissections were slowed down from August onwards owing to the scarcity of mosquitoes found in the routine catching stations.

#### ANTI-LARVAL ACTIVITIES.

*Kyrenia Coast Area.*—Following a successful demonstration of larval control in a small zone (Ayios Epiktitos) on the Kyrenia Coast in 1937, the Director of Medical Services requested that the area be extended to include an additional number of villages. The zone eventually selected lies between the sea and the Kyrenia range of mountains and encompasses an area of about 39 miles in length and 3 miles in depth. It contains approximately 115 square miles and 23 villages having a combined population of about 15,000 inhabitants.

The area was divided into three zones, each more or less equal with regard to the length of streams to be controlled, and designated as Zones A, B and C. It is a strictly *superpictus* area.

In Zone A three methods of control were employed. In three of its streams, the experiment started in 1937 with semi-permanent sub-soil drainage was continued, and in another stream, larval destruction by periodic flushing was accomplished. In the remaining streams in the zone the liquid method of paris green (a mixture of paris green-kerosene and water) was utilized. In Zone B the streams were controlled by the application of a mixture of paris green and wood ash. In Zone C the liquid method of paris green was used exclusively.

The anti-larval measures were highly successful as gauged by regular examination of all streams for breeding, and by the small number of adult mosquitoes found in the many adult catching stations which had been established for this purpose and which were examined weekly.

It is expected that with one or two more years of experience a comparison of the various control measures employed in the area will be possible and interesting.

The cost of the protective measures in the whole area for the year amounted to about £250, or 3*p.*, per capita (8 to 9 cents.).

*Tilliria Area.*—This area is situated on the west coast of the Island and extends from Karavostasi on the east to Polis on the west, and inland for a distance of from 2 to 3 miles. Its population, due largely to the extremely malarious conditions prevailing, is said to be in poorer economic condition than that in any other section of the Island.

At the time when protection measures were being planned for the Kyrenia area it was understood that the Tilliria villages would be left unprotected and would, therefore, provide an excellent group for comparison purposes. This was not to be however. Local feeling was against this and the Medical Department thought it better to inaugurate anti-larval measures in a large part of the area. The zone in which these measures were applied contains 15 villages having an estimated population of about 3,000 persons.

Larval control operations were in the hands of the Medical Department with the Bureau of Malaria Control acting only in an advisory capacity. The Bureau undertook to measure the effectiveness of the anti-larval work by regular adult mosquito catches and periodic examination of the streams, and also to gauge the effect of the control measures on the malaria incidence by annual spleen and blood surveys.

The liquid method of paris green control was employed and the results were comparable to those obtained in the Kyrenia area.



## ENGINEERING REPORT, 1938.

BY J. C. CARTER AND A. McLAUGHLAN.

The following engineering works were carried out in the field by the Bureau of Malaria Control and are described briefly.

## ANTI-MALARIAL CONTROL OF THE NORTHERN COAST IN THE KYRENIA DISTRICT.

The northern coast of the Kyrenia District is a narrow strip of hilly land approximately 115 square miles in area. Along its length it is bounded on the north by the sea and on the south by the Kyrenia range of mountains. The area is intersected by numerous gorges in which spring water rising in the mountains flows to the sea. It is in these gorges that profuse *A. superpictus* breeding takes place.

During 1937 certain areas in the district were controlled and others remained as comparison stations. The methods of control adopted were paris green dusting, drainage of streams by semi-permanent open jointed pipe line, and flushing. Details of the work done in 1937 are given in the 1937 Annual Report.

During 1938 it was decided to control the complete northern section of the Kyrenia District by means of palliative anti-larval measures, and semi-permanent works. The semi-permanent works were applied on four of the streams in the district and consist of: (1) drainage of the streams by semi-permanent open jointed pipe line, and (2) flushing the streams by means of impounded water, and are described as follows:—

(1) *Drainage of Streams by Open Jointed Concrete Pipe Line.*—The pipes used for this work were 4½ inches diameter concrete pipes with half-inch walls made *in situ* (see Annual Engineering Report, 1937). The streams drained and the length of pipe line laid are listed below:—

Kamenos Stream	..	..	5,498 linear feet.
Kalamias Stream	..	..	2,510 linear feet.
Karaviou Stream	..	..	16,234 linear feet.
Total	..	..	24,242 linear feet.

The actual number of linear feet of pipe line made was 27,175. The discrepancy between the number of pipes made and those subsequently laid, i.e. 2,933 linear feet, is due to certain stretches of stream which had dried before the completion of the laying of the pipe lines. It will always be necessary, however, to keep a surplus stock of pipes owing to the great variation in the wet length of streams from year to year.

The various operations that have to be carried out in the making of pipes for drainage works of this type are summarized with average costs:—

	£	s.	p.
1. Pipe making by contract .. .. .	13	3	8 per mile.
2. Collection of sand and curing pipes by direct labour ..	9	9	4 per mile.
3. Transport of pipes to stream bed .. .. .	2	17	4 per mile.
4. Laying pipes and wiring .. .. .	3	14	8 per mile.
5. Cost of cement .. .. .	9	8	7 per mile.
6. Cost of wire and spikes .. .. .	1	18	2 per mile.
Total .. .. .	£40	12	6

The cost of transport and supervision are not included in the above figures.

In order to safeguard the pipe lines from early floods which may arrive prior to the taking up of the pipe line for winter storage, experiments were carried out to devise some means whereby the pipes could be anchored to the stream bed, and would not be subject to violent displacement and breakage due to the rapid flow of flood-water. With this in mind 100 linear feet of pipe line were laid commencing a few feet on the downstream side of a flushing reservoir. The pipe line was then anchored to the stream bed by passing a length of galvanized iron wire through the pipe line and pegging the ends of the wire to the stream bed by means of steel spikes. As a test the gate of the reservoir was opened and the surge of water, which is equivalent to natural flooding in winter, was allowed to flow over the pipe line. After inspection the pipe line appeared to be in good order with the exception of two pipes which were broken by boulders washed down by the surge of water. Subsequently this method of anchorage was adopted throughout the pipe lines.

All pipe lines will be taken up a short time before the commencement of the rainy season about mid-October. They will be stacked neatly in stacks 25 feet apart, each stack containing 25 pipes. The stacks will be numbered in blue paint in order to facilitate subsequent checking when any missing stacks may be detected easily. Also the pipes will be close to the stream bed where they will be relaid during the following spring.

Generally speaking it has been found that the semi-permanent open jointed pipe lines are a most effective and inexpensive method of draining mountain streams but have the following disadvantages:—

- The pipes have to be taken up every year.
- The pipes are open to breakage by the inhabitants.
- Early floods may completely damage the pipe line.



With regard to (a) and (c) these disadvantages may be overcome if the experimental anchoring of the pipe line proves successful.

(2) *Flushing of Streams with Impounded Water in Reservoirs.*—The Kaloyeros stream near Ayios Amvrosios was controlled by means of flushing during 1937, and is similarly controlled this year. The experimental reservoirs withstood the winter floods better than expected and the cost of maintenance was negligible. (For details of the reservoirs and flushing operations, see Annual Engineering Report, 1937.)

*Extension of the Kochati Pipe Line.*—The Kochati pipe line was laid in 1937 with the object of draining half a mile of the Yiallias river on each side of Kochati village, by means of a 12-inch diameter open jointed subsoil pipe line which would allow the water to flow underground.

In May, 1938, it was observed that flow above ground continued to take place in the river. It was considered advisable, therefore, to extend the pipe line across the river in order to intercept the flow of water.

The extension of the Kochati pipe line was commenced on the 30th June, 1938, and was completed on 12th July. The work was done by direct labour and not by contract as in 1937 and consisted of the making and laying of 328 feet of concrete pipes and the installation of a reinforced concrete catchpit at the head of the extension.

The cost of carrying out the work was as follows:—

	£	s.	p.
328 feet of concrete pipes 12 inches diameter .. .. .	1	10	6
2.25 tons of cement in above .. .. .	5	3	4½
Labour in casting concrete box .. .. .	—	10	0
Steel in concrete box .. .. .	—	15	0
0.35 tons of cement in above .. .. .	—	16	0
Excavating 328 feet length, average 6 feet deep .. .. .	5	6	5
Laying 328 feet of pipes .. .. .	1	10	0
Covering 328 feet of pipes with soil .. .. .	2	6	3
<b>Total .. .. .</b>	<b>£17</b>	<b>13</b>	<b>0½</b>

or £285. 7s. per mile,  
or 3s. 2½p. per linear yard.

It is interesting to note that the work done by direct labour has worked out 8½p. cheaper per yard run than the contract work done in 1938, and represents a saving of £46. 7s. per mile.

#### ANTI-MALARIAL AND IRRIGATION SCHEME FOR THE DRAINAGE OF THE MERIKOS RIVER NEAR AYIA KEBIR.

The village of Ayia Kebir is situated in the Mesaoria plain, and is about 5 miles north-east of Pyroi where drainage works were carried out in 1936. It is menaced by mosquitoes which breed in a barrow pit on the outskirts of the village, and in the Merikos river which is one mile distant east of the village.

The Merikos river in the vicinity of Ayia Kebir was formerly dry, but latterly due to the overflow of a newly-constructed water supply known as "The Michaelides Chain of Wells" the river-bed has become water-logged creating mosquito breeding conditions. In 1934 the Medical Department canalized approximately 3 miles of river-bed in order to protect the village of Athienou, and the outflow of this canal has formed a marsh in the bed of the Merikos river.

Early this year a contoured survey of the Merikos river and the adjacent land was carried out with a view to diverting the water on to the land for purposes of irrigation and drainage of the river-bed. It was found that an earth channel of small sections would be required to divert the water from the river-bed, and would command land on which the water could be used for agricultural purposes. The quantity of water available ranges from 10 cubic feet per minute in the spring to approximately 2 cubic feet per minute in the summer. From enquiries made at the Agricultural Department, the average flow of 5 cubic feet per minute will irrigate approximately 25 donums or 8 acres of land.

During July it was decided to carry out the scheme which consisted of the following, and was estimated to cost £20:—

- (1) A trapezoidal earth channel at a grade of 1 in 500 with bottom width 9 inches and side slopes at 1 to 1.
- (2) An earth dam to divert the flow from the Merikos river to the earth channel.

Working grade and location pegs have been put in and all is in readiness for the commencement of the work. As an engineer attached to the Bureau of Malaria Control will not be available, it was recommended that an engineer from the Public Works Department should be detailed to supervise the work.

The barrow pit mentioned in paragraph 1 collects rain water during the winter. It is proposed to fill it with soil to approximately half its depth and allow the silt which is brought down in suspension in the winter to deposit and fill it completely.



TABLE I.—RESULTS OF AUTUMN SURVEY, 1938.—(All Districts).

District	No. of Villages Surveyed	Spleen Indices						Blood Indices										
		NP	P	I	II	III	IV	No. Exam.	No. Pos.	% Pos.	Av. Spl.	V	F	M	Mix.	No. Exam.	No. Pos.	% Pos.
Nicosia	34	632	246	344	179	28	—	1,429	797	55.8	2.1	166	270	105	20	1,429	561	39.3
Larnaca	9	220	56	46	18	1	—	341	121	35.5	1.6	35	40	11	2	341	88	25.8
Limassol	32	849	158	147	64	11	—	1,229	380	30.9	1.6	81	109	76	5	1,229	271	22.0
Famagusta	13	402	83	24	6	—	—	515	113	21.9	1.3	34	19	7	—	515	60	11.6
Paphos	32	389	200	310	202	40	—	1,141	752	65.9	2.4	144	240	195	22	1,141	601	52.7
Kyrenia	9	164	89	96	30	9	—	388	224	57.7	2.0	33	47	38	1	388	119	30.7
Total	129	2,656	832	967	499	89	—	5,043	2,387	47.3	1.8	493	725	432	50	5,043	1,700	33.7

TABLE II.—SPLEEN AND BLOOD INDICES BY AGE GROUPS AND BY ANOPHELES SPECIES AREAS.—AUTUMN SURVEY, 1938.

District		Spleen						Blood											
		1-5 years			6-9 years			10-14 years			1-5 years			6-9 years			10-14 years		
		No. Exam.	No. Pos.	% Pos.	No. Exam.	No. Pos.	% Pos.	No. Exam.	No. Pos.	% Pos.	No. Exam.	No. Pos.	% Pos.	No. Exam.	No. Pos.	% Pos.	No. Exam.	No. Pos.	% Pos.
Nicosia	..	13	9	69.2	126	82	65.1	103	64	62.1	13	7	53.8	126	69	54.8	103	45	43.4
..	..	82	53	64.6	539	306	56.8	566	283	50.0	82	50	61.0	539	209	38.9	566	181	32.0
Larnaca	..	29	14	48.3	156	53	34.0	156	54	34.6	29	18	62.1	156	35	22.4	156	35	22.4
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Limassol	..	6	5	83.3	139	89	64.0	119	83	69.7	6	6	100.0	139	75	53.9	119	52	43.7
..	..	35	20	57.1	433	89	20.5	497	94	18.9	35	19	54.3	433	54	12.5	497	65	13.1
Namagusta	..	6	..	..	167	33	19.7	129	22	17.1	6	1	16.6	167	23	13.8	129	11	8.5
..	..	10	1	10.0	103	30	29.1	100	27	27.0	10	2	20.0	103	12	11.6	100	11	11.0
Paphos	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	..	26	23	88.5	598	373	62.4	517	356	68.8	26	20	76.9	598	310	51.8	517	271	52.4
Kyrenia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	..	9	..	..	161	90	55.9	218	134	61.5	9	2	22.2	161	54	33.5	218	63	28.9
Total	..	54	28	51.8	588	257	43.7	507	223	44.0	54	32	59.3	588	202	34.4	507	143	28.2
..	..	162	97	59.9	1,834	888	48.4	1,898	894	47.1	162	93	57.4	1,834	639	34.8	1,898	591	31.1



TABLE III.—MALARIA CASES TREATED AT GOVERNMENT HOSPITALS AND DISPENSARIES, 1938.

Month	Nicosia District					Limassol District.					Famagusta District					Paphos District					Larnaca District			K. D.	Grand Total				
	Nicosia	Kilrou	Leftka	Morphou	Pedhoulas	Pyrpos	Total	Limassol	Agros	Kernithi	Kollak	Total	Famagusta	Leftka	Vatousa	Lysi	Total	Kitina	Pollas	Stroumbi	Pano Pafos	Kolke-thara	Total			Larnaca	Kophi-nou	Total	
January ..	139	21	16	133	—	—	309	45	4	45	—	94	32	19	46	6	103	45	75	—	—	—	131	60	31	91	23	751	
February ..	91	15	4	82	—	—	194	64	4	32	21	121	30	11	19	5	65	16	19	—	—	6	91	39	11	50	19	540	
March ..	142	24	9	121	—	—	298	62	4	34	35	135	25	28	26	6	85	33	66	—	—	21	14	134	21	18	39	12	703
April ..	106	41	12	160	—	—	222	79	5	43	32	159	38	18	23	5	84	29	57	—	—	13	14	113	37	18	55	22	655
May ..	145	62	17	106	6	7	343	117	5	58	41	221	46	30	14	11	101	47	57	4	4	29	151	65	21	86	38	940	
June ..	190	85	18	104	9	15	421	155	10	40	37	243	68	44	8	14	134	66	32	17	17	22	140	74	38	112	66	1,123	
July ..	257	127	17	140	14	33	588	296	16	98	69	478	83	29	29	15	156	71	45	10	45	12	183	110	58	168	83	1,656	
August ..	244	142	24	183	14	26	643	221	21	105	77	424	70	40	23	15	148	111	61	38	14	5	229	101	155	156	69	1,969	
September ..	245	103	23	143	7	15	538	213	20	114	90	437	37	35	32	11	115	111	58	28	30	5	232	104	6	110	57	1,489	
October ..	184	62	12	116	3	28	305	114	9	39	34	196	35	34	40	13	122	55	48	22	23	4	152	68	24	92	32	999	
November ..	97	47	5	53	1	12	215	127	6	47	28	208	17	13	18	10	58	47	31	10	17	2	107	31	21	52	17	657	
December ..	76	34	3	54	—	6	173	88	4	15	23	130	13	5	15	1	34	43	13	7	7	11	79	33	15	48	8	472	
Total ..	1,916	703	160	1,297	61	152	4,349	1,581	108	670	487	2,846	494	306	293	112	1,205	674	612	136	225	102	1,749	743	316	1,059	446	11,654	

TABLE IV.—INFANT MALARIA SURVEY, 1938.—Superficial Areas. (Only Infants born after 1st December, 1937, are included.)

Date of exam. in Mos.	March			April			May			June			July			August			September			October			November			Total		
	No. exam.	No. Pos.	% Pos.	No. exam.	No. Pos.	% Pos.	No. exam.	No. Pos.	% Pos.	No. exam.	No. Pos.	% Pos.	No. exam.	No. Pos.	% Pos.	No. exam.	No. Pos.	% Pos.	No. exam.	No. Pos.	% Pos.	No. exam.	No. Pos.	% Pos.	No. exam.	No. Pos.	% Pos.	No. exam.	No. Pos.	% Pos.
0-1	12	—	—	22	—	—	10	—	—	5	—	—	10	—	—	9	—	—	14	—	—	12	—	—	11	—	—	105	—	—
1-2	12	—	—	22	—	—	10	—	—	5	—	—	10	—	—	9	—	—	14	—	—	12	—	—	11	—	—	105	—	—
2-3	16	—	—	23	—	—	13	—	—	13	—	—	12	—	—	12	—	—	7	—	—	17	—	—	11	—	—	123	—	—
3-4	13	—	—	23	—	—	10	—	—	19	—	—	20	—	—	11	—	—	8	—	—	10	—	—	15	—	—	129	—	—
4-5	13	—	—	23	—	—	10	—	—	19	—	—	20	—	—	11	—	—	2	—	—	10	—	—	15	—	—	129	—	—
5-6	2	—	—	21	—	—	17	—	—	12	—	—	21	—	—	20	—	—	7	—	—	7	—	—	9	—	—	116	—	—
6-7	2	—	—	21	—	—	17	—	—	12	—	—	21	—	—	20	—	—	3	—	—	7	—	—	9	—	—	116	—	—
7-8	2	—	—	21	—	—	17	—	—	12	—	—	21	—	—	20	—	—	20	—	—	7	—	—	9	—	—	106	—	—
8-9	2	—	—	21	—	—	17	—	—	12	—	—	21	—	—	20	—	—	1	—	—	7	—	—	9	—	—	106	—	—
9-10	2	—	—	21	—	—	17	—	—	12	—	—	21	—	—	20	—	—	6	—	—	7	—	—	9	—	—	106	—	—
10-11	2	—	—	21	—	—	17	—	—	12	—	—	21	—	—	20	—	—	10	—	—	17	—	—	10	—	—	102	—	—
Total	43	1	2.3	95	1	1.0	66	1	1.5	86	1	1.2	128	2	1.6	130	9	6.9	135	5	3.7	132	6	4.5	124	5	4.0	939	31	3.3
	43	1	2.3	95	14	14.7	66	20	30.3	86	15	17.4	128	18	14.0	130	41	31.5	135	45	33.3	132	38	28.8	124	24	19.3	939	216	23.0

TABLE V.—INFANT MALARIA SURVEY, 1938.—*Eltatus Areas*. (Only Infants born after 1st December, 1937, are included.)

Date of Exam.	Age in Mos.	March			April			May			June			July			August			September			October			November			Total		
		Exam.	No.	Pos.	Exam.	No.	Pos.	Exam.	No.	Pos.	Exam.	No.	Pos.	Exam.	No.	Pos.	Exam.	No.	Pos.	Exam.	No.	Pos.	Exam.	No.	Pos.	Exam.	No.	Pos.	Exam.	No.	Pos.
0-1	Blood	7	1	—	—	—	—	—	—	—	9	6	—	6	—	—	5	5	—	4	4	—	5	5	—	1	1	—	37	1	—
1-2	Spleen	7	—	—	—	—	—	—	—	—	6	6	—	—	—	—	5	4	—	4	4	—	4	4	—	—	—	—	37	1	—
1-2	Blood	10	—	—	—	—	—	—	—	—	1	1	—	—	—	—	2	2	—	4	4	—	4	4	—	6	6	—	41	4	—
2-3	Spleen	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—	—	1	1	—	41	4	—
2-3	Blood	5	—	—	—	—	—	—	—	—	4	4	—	3	3	—	4	3	—	4	4	—	3	3	—	2	2	—	37	1	—
3-4	Spleen	5	—	—	—	—	—	—	—	—	4	4	—	3	3	—	7	7	—	4	4	—	4	4	—	3	3	—	37	6	—
3-4	Blood	5	—	—	—	—	—	—	—	—	6	6	—	3	3	—	1	1	—	4	4	—	1	1	—	3	3	—	30	—	—
4-5	Spleen	1	—	—	—	—	—	—	—	—	6	3	—	1	1	—	—	—	—	4	4	—	1	1	—	3	3	—	30	13	43.3
4-5	Blood	1	—	—	—	—	—	—	—	—	3	3	—	3	3	—	4	4	—	—	—	—	3	3	—	4	4	—	20	—	—
5-6	Spleen	—	—	—	—	—	—	—	—	—	3	3	—	3	3	—	4	4	—	—	—	—	3	3	—	4	4	—	20	9	45.0
5-6	Blood	—	—	—	—	—	—	—	—	—	3	3	—	4	4	—	5	5	—	—	—	—	4	4	—	6	6	—	37	1	27.7
6-7	Spleen	—	—	—	—	—	—	—	—	—	11	11	—	4	4	—	5	5	—	5	5	—	4	4	—	6	6	—	37	10	27.0
6-7	Blood	—	—	—	—	—	—	—	—	—	11	11	—	1	1	—	3	3	—	1	1	—	3	3	—	2	2	—	23	3	8.7
7-8	Spleen	—	—	—	—	—	—	—	—	—	1	1	—	3	3	—	2	2	—	3	3	—	5	5	—	2	2	—	23	11	47.8
7-8	Blood	—	—	—	—	—	—	—	—	—	1	1	—	3	3	—	4	4	—	3	3	—	4	4	—	2	2	—	15	—	—
8-9	Spleen	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	15	7	46.6
8-9	Blood	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	3	—	3	3	—	4	4	—	6	6	—	20	4	20.0
9-10	Spleen	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	20	8	40.0
9-10	Blood	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9	9	—	6	6	—	4	4	—	2	2	—	11	3	27.3
10-11	Spleen	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	11	4	36.4
10-11	Blood	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	6	—	6	2	33.3
10-11	Spleen	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	6	2	33.3
Total	Blood	23	—	—	—	—	—	—	—	—	32	—	—	34	2	5.9	30	2	6.6	40	3	7.5	40	3	7.5	40	4	10.0	277	14	5.1
Total	Spleen	23	—	—	—	—	—	—	—	—	32	6	18.8	34	8	23.5	30	11	36.5	40	19	47.5	40	10	25.0	40	15	37.5	277	75	27.1



TABLE VI.—INFANT MALARIA SURVEY, 1938.—All Areas. (Only Infants born after 1st December, 1937, are included.)

Date of Exam.	Age in Mos.	March			April			May			June			July			August			September			October			November			Total		
		No. Exam.	% Pos.	Pd. of Exp.	No. Exam.	% Pos.	Pd. of Exp.	No. Exam.	% Pos.	Pd. of Exp.	No. Exam.	% Pos.	Pd. of Exp.	No. Exam.	% Pos.	Pd. of Exp.	No. Exam.	% Pos.	Pd. of Exp.	No. Exam.	% Pos.	Pd. of Exp.	No. Exam.	% Pos.	Pd. of Exp.	No. Exam.	% Pos.	Pd. of Exp.	No. Exam.	% Pos.	Pd. of Exp.
0-1	Blood	19	—	Mar.	29	—	Apr.	10	—	May	11	—	June	—	—	July	14	—	Aug.	18	—	—	17	—	Oct.	12	—	Nov.	142	—	Nov.
1-2	Spleen	19	—	Mar.	29	—	Apr.	10	—	May	11	—	June	—	—	July	14	—	Aug.	18	—	—	17	—	Oct.	12	—	Nov.	142	—	Nov.
2-3	Blood	26	—	Mar.	29	—	Apr.	10	—	May	11	—	June	—	—	July	14	—	Aug.	18	—	—	17	—	Oct.	12	—	Nov.	142	—	Nov.
3-4	Spleen	18	—	Mar.	29	—	Apr.	10	—	May	11	—	June	—	—	July	14	—	Aug.	18	—	—	17	—	Oct.	12	—	Nov.	142	—	Nov.
4-5	Blood	18	—	Mar.	29	—	Apr.	10	—	May	11	—	June	—	—	July	14	—	Aug.	18	—	—	17	—	Oct.	12	—	Nov.	142	—	Nov.
5-6	Spleen	18	—	Mar.	29	—	Apr.	10	—	May	11	—	June	—	—	July	14	—	Aug.	18	—	—	17	—	Oct.	12	—	Nov.	142	—	Nov.
6-7	Blood	3	—	Mar.	29	—	Apr.	10	—	May	11	—	June	—	—	July	14	—	Aug.	18	—	—	17	—	Oct.	12	—	Nov.	142	—	Nov.
7-8	Spleen	3	—	Mar.	29	—	Apr.	10	—	May	11	—	June	—	—	July	14	—	Aug.	18	—	—	17	—	Oct.	12	—	Nov.	142	—	Nov.
8-9	Blood	3	—	Mar.	29	—	Apr.	10	—	May	11	—	June	—	—	July	14	—	Aug.	18	—	—	17	—	Oct.	12	—	Nov.	142	—	Nov.
9-10	Spleen	3	—	Mar.	29	—	Apr.	10	—	May	11	—	June	—	—	July	14	—	Aug.	18	—	—	17	—	Oct.	12	—	Nov.	142	—	Nov.
10-11	Blood	3	—	Mar.	29	—	Apr.	10	—	May	11	—	June	—	—	July	14	—	Aug.	18	—	—	17	—	Oct.	12	—	Nov.	142	—	Nov.
Total	Spleen	66	1 1.5	Mar.	121	1 1.3	Apr.	78	1 0.8	May	118	1 0.8	June	162	4 2.5	July	160	11 6.9	Aug.	175	8 4.6	Sept.	172	9 5.2	Oct.	164	9 5.3	Nov.	1,216	45 3.7	Nov.
	Blood	66	2 3.0	Mar.	121	17 14.0	Apr.	78	22 28.2	May	118	21 17.8	June	162	52 32.5	July	160	52 32.5	Aug.	175	64 36.6	Sept.	172	48 27.9	Oct.	164	39 23.8	Nov.	1,216	291 23.9	Nov.

TABLE VII.—Mosquito Dissections—FEBRUARY TO DECEMBER, 1938.

Month	<i>A. Superpictus</i>						<i>A. Elatus</i>						<i>A. Bifurcatus</i>						TOTALS					
	Glands			Stomachs			Glands			Stomachs			Glands			Stomachs			Glands			Stomachs		
	No. dissectd.	No. Pos.	% Pos.	No. dissectd.	No. Pos.	% Pos.	No. dissectd.	No. Pos.	% Pos.	No. dissectd.	No. Pos.	% Pos.	No. dissectd.	No. Pos.	% Pos.	No. dissectd.	No. Pos.	% Pos.	No. dissectd.	No. Pos.	% Pos.	No. dissectd.	No. Pos.	% Pos.
February	162	3	1.8	93	1	1.0	44	2	4.5	9	—	—	101	—	—	—	—	—	307	5	1.6	117	1	0.9
March	406	—	—	128	—	—	135	1	0.7	53	—	—	31	—	—	—	—	—	572	1	0.17	190	—	—
April	183	—	—	47	—	—	77	—	—	30	—	—	32	—	—	—	—	—	292	—	—	80	—	—
May	245	—	—	103	2	1.9	353	1	0.3	165	2	1.2	64	—	—	—	—	—	662	1	0.15	289	4	1.4
June	223	4	1.8	93	2	2.1	375	9	2.4	186	—	—	1	—	—	—	—	—	599	13	2.2	279	2	0.7
July	243	14	5.7	108	3	2.7	301	7	2.3	162	1	0.6	—	—	—	—	—	—	544	21	3.9	270	4	1.5
August	50	5	10.0	13	—	—	236	6	2.2	155	1	0.6	—	—	—	—	—	—	286	11	3.8	168	1	0.6
September	32	2	6.2	12	—	—	202	2	0.9	124	—	—	—	—	—	—	—	—	234	4	1.7	136	—	—
October	29	—	—	7	—	—	211	2	1.0	95	—	—	—	—	—	—	—	—	210	2	0.8	102	—	—
November	30	—	—	13	—	—	88	3	3.4	16	—	—	1	—	—	—	—	—	119	3	2.5	29	—	—
December	12	—	—	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12	—	—	7	—	—
Total	1,615	28	1.7	624	8	1.3	2,022	33	1.6	995	4	0.4	230	—	—	—	—	—	3,867	61	1.6	1,667	12	0.7



TABLE VIII.—TOTAL AND MEAN RAINFALL (BY DISTRICTS), 1938.—(In inches).

District	January	February	March	April	May	June	July	August	Sept.	October	November	December	Total yearly	No. of Stations	Mean
Nicosia ..	139.57	65.83	22.30	46.35	15.43	0.03	0.11	23.12	18.44	35.43	33.55	112.55	512.71	22	1.94
Limassol ..	6.34	2.99	1.01	2.11	0.70	—	—	1.05	0.84	1.61	1.52	5.11	23.31	—	—
..	133.00	63.98	14.61	48.25	8.72	1.84	0.98	12.76	7.54	30.23	11.93	87.55	421.44	12	—
Larnaca ..	11.08	5.33	1.22	4.02	0.73	0.15	0.08	1.06	0.63	2.52	0.99	7.30	35.12	—	2.92
..	44.05	13.20	5.97	12.12	3.65	0.21	—	0.95	4.77	12.31	6.96	51.51	155.36	8	—
Famagusta ..	5.81	1.65	0.75	1.51	0.46	0.03	—	0.12	0.60	1.54	0.87	6.39	19.42	—	1.64
..	60.29	26.80	9.09	18.41	11.69	—	0.10	0.77	11.22	10.40	49.41	49.41	247.59	14	—
Paphos ..	4.31	1.91	0.65	1.32	0.84	—	—	0.05	0.80	0.74	3.53	3.53	17.68	—	1.47
..	118.66	52.91	11.90	47.72	19.40	0.05	—	2.61	8.70	19.39	21.06	90.19	402.39	13	—
Kyrenia ..	9.13	4.07	0.92	3.67	1.49	—	—	0.20	0.67	1.49	1.62	6.94	30.95	—	2.52
..	35.35	27.35	9.39	11.08	1.67	—	—	0.05	2.54	7.13	12.36	52.50	159.42	7	—
..	5.05	3.91	1.34	1.58	0.24	—	—	0.01	0.36	1.02	1.77	7.50	22.77	—	1.90
All Districts—Mean ..	6.95	3.31	0.98	2.37	0.74	0.03	0.01	0.41	0.65	1.49	1.72	6.13	—	—	—

TABLE IX.—MEAN MINIMUM AND MAXIMUM TEMPERATURES BY MONTHS AND BY DISTRICTS, 1938.

Months	Nicosia		Limassol		Larnaca		Famagusta		Kyrenia		All Districts (except Paphos)	
	Mean Max.	Mean Min.	Mean Max.	Mean Min.	Mean Max.	Mean Min.	Mean Max.	Mean Min.	Mean Max.	Mean Min.	Mean Max.	Mean Min.
January ..	59.19	42.10	62.19	44.71	60.42	40.84	62.90	42.48	60.55	48.20	61.05	43.66
February ..	57.57	40.18	61.00	43.00	60.50	40.57	62.57	41.67	58.14	45.54	59.93	42.19
March ..	62.90	40.00	64.23	42.68	64.06	40.35	66.92	38.28	61.74	46.39	63.97	41.54
April ..	73.83	49.23	72.43	50.93	72.70	50.57	75.24	50.56	68.29	53.15	72.49	50.88
May ..	84.10	57.00	80.77	55.90	81.87	54.71	84.29	59.00	76.26	55.16	87.46	56.35
June ..	95.43	66.17	89.60	61.50	90.70	62.37	92.96	67.90	85.13	66.13	90.78	64.81
July ..	98.87	71.06	92.48	67.32	93.50	67.50	96.35	74.19	88.97	72.16	94.03	70.44
August ..	98.97	72.16	93.74	68.94	93.29	70.58	98.61	75.00	90.21	73.29	94.96	71.98
September ..	90.00	64.73	87.37	64.10	84.90	62.63	92.33	67.40	85.18	68.25	87.95	65.42
October ..	82.97	56.71	82.19	58.48	80.16	57.10	83.96	54.03	78.19	60.16	81.49	57.29
November ..	69.23	48.43	72.43	52.23	69.66	50.33	72.73	48.36	69.25	54.21	70.66	50.71
December ..	63.00	45.35	65.81	49.68	63.52	46.45	66.09	49.00	64.06	52.19	64.49	48.53



## APPENDIX B.

## REPORT OF THE SPECIALIST (SURGEON) FOR THE YEAR 1938.

By CYRIL H. CUFF, O.B.E., M.B., B.S., F.R.C.S. (Ed.), *Specialist (Surgeon), Cyprus.*

There has been a general increase of surgical work during the year, especially in Nicosia, where the greater proportion of surgical cases were treated, the patients being brought there from all over the Island.

This results in a perpetual shortage of beds, a situation which it is hoped will be greatly improved with the opening of the New Hospital.

This building which is rapidly approaching completion, will be a fine modern institution from every point of view, and the surgical block will be so equipped as to afford every facility to those working in it. I should like to express my sincere appreciation for the work of the staff, both medical and nursing during the year, without whose loyal co-operation and devotion to duty the present satisfactory results of treatment could not be obtained.

## GENERAL SURGERY.

*T. B. Peritonitis.*—The treatment of the ascitic type by laparotomy, removal of fluid, and subsequent exposure of the intestines to ultra violet light (carbon arc) has been continued, and of 14 cases thus treated during the last 5 years, only 1 shows signs of recurrence.

*Knife Wounds.*—The prevalence of stabbing offences in the Colony gives rise to an extraordinary series of injuries to viscera, muscles, nerves, etc., which call for a considerable amount of ingenuity in devising means for their repair.

The more common types of injuries are those of the liver, spleen, kidney, intestine and thorax. Rarer examples are wounds of the face, bladder, rectum and external genitalia. The results of treatment, on the whole, are good.

*Appendicitis.*—Observations over a period of 12 years has shown that acute forms of this disease are quite rare. Abscess formation and peritonitis being seldom seen. The usual type is of the retro-caecal variety, the appendix being thick, fibrous and usually adherent to the right iliac fossa. Considerable difficulty is sometimes experienced in removing the organ.

*Hydatid Disease.*—This serious condition is still very prevalent in the Colony, and cysts are found in many different parts of the body and even under the skin. The commonest site is the liver where the cysts are often of considerable size. We have recently abandoned the drainage of the ectocyst after removal of the endocyst, and now do a capitonage, when possible, and complete closure. The results are generally very satisfactory. The line of suture of the cyst wall is attached to the parietal peritoneum, in case of leakage.

*Ungentolan.*—We have for some time been experimenting with the preparation known as Ungentolan. This is a sterile ointment containing pure cod-liver oil with its vitamins A and D in their natural state. Ungentolan is prepared by Messrs. Heyl & Co. of Berlin, and although somewhat costly in the first instance, effects a considerable economy in dressings. It has been used in a variety of cases, more particularly in the treatment of extensive and dirty wounds resulting from accidents, acute and chronic osteomyelitis, burns, and in non-healing surface wounds. If the Ungentolan is properly applied in a thick layer and the part firmly bandaged, wounds may be left untouched for a week or 10 days with no ill effect, and on removal of the dressing the result is often surprising, a clean healthy, healing surface, being almost the rule.

In hastening epithelisation, Ungentolan is highly effective.

*Radium.*—Results continue to be satisfactory and technique remains the same. During the year, experiments were tried with plasticine moulds for carrying surface radium, especially for the treatment of growths in the antrum and orbit. The method appears to be promising.

TABLE I.—RETURN OF SURGICAL OPERATIONS OF 1938.

Operation	Total	Cured	Relieved	Unrelieved	Died
Abscess .. .. .	227	206	12	1	8
Amputations .. .. .	34	23	7	2	2
Appendicectomy .. .. .	279	275	—	1	3
Benign Tumours .. .. .	97	93	4	—	—
Cholecystectomy .. .. .	1	1	—	—	—
Caesarian section .. .. .	13	10	—	—	3
Cystotomy .. .. .	7	4	—	—	3
Curettage .. .. .	148	145	—	—	3
Cystoscopy .. .. .	7	3	4	—	—
Eye .. .. .	221	219	2	—	—
Empyema (tapped) .. .. .	4	2	2	—	—
Empyema (resection of Rib) .. .. .	6	3	3	—	—
Fistula .. .. .	16	13	2	1	—
Glands (excision of) .. .. .	15	11	4	—	—
Gastro-Intestinal Oper. .. .. .	8	3	2	—	3
Hernia .. .. .	248	232	3	—	13
Hydrocele .. .. .	16	16	—	—	—
Haemorrhoids .. .. .	9	8	1	—	—
Hydatid cyst .. .. .	10	3	5	—	2
Intestinal Operation .. .. .	3	2	—	—	1
Carried forward .. .. .	1,369	1,272	51	5	41



TABLE I.—RETURN OF SURGICAL OPERATIONS OF 1938—continued.

Operation	Total	Cured	Relieved	Unrelieved	Died
Brought forward .. ..	1,369	1,272	51	5	41
Laparotomy .. ..	50	36	3	2	9
Mastoid .. ..	11	8	—	—	3
Malignant Tumours—					
(a) Breast .. ..	25	15	9	—	1
(b) Uterus .. ..	28	5	20	2	1
(c) Other sites .. ..	54	11	37	5	1
Male Genital Organs .. ..	26	21	3	—	2
Miscellaneous .. ..	166	129	21	7	9
Minor Operations .. ..	258	254	—	2	2
Nephrectomy and Nephrotomy ..	6	4	—	—	2
Open Operations on Fract. & Joint	134	102	24	8	—
Fractured Skull with cerebral lesion	5	3	—	—	2
Open Operation on Nerves ..	1	1	—	—	—
Osteomyelitis .. ..	9	8	1	—	—
Plastic Operations .. ..	5	3	1	—	1
Sequestrectomy .. ..	5	3	2	—	—
Salpingo-oophorectomy .. ..	17	17	—	—	—
Splenectomy .. ..	5	4	—	—	1
Tonsils .. ..	19	19	—	—	—
Throat and nose .. ..	45	42	3	—	—
Tendon transplantation .. ..	8	7	1	—	—
Tracheotomy .. ..	1	1	—	—	—
Thoracotomy .. ..	1	1	—	—	—
Thyroid operation .. ..	5	4	1	—	—
Trephining .. ..	2	2	—	—	—
Hysterectomy .. ..	20	18	2	—	—
Vetrofixation .. ..	2	1	1	—	—
Total .. ..	2,277	1,991	180	31	75

TABLE II.—TABLES SHOWING PRESENT CONDITION OF PATIENTS SINCE COMMENCEMENT OF RADIUM THERAPY.

Patients treated in 1930. Condition—December, 1938.									
	Number treated	Apparently cured	Improved	Recurrence	Died	Unknown	Not Improved		
Uterus .. ..	10	3	—	—	7	—	—		
Head .. ..	26	11	1	—	14	1	—		
Other sites ..	10	—	—	—	10	—	—		
Patients treated in 1931. Condition—December, 1938.									
Uterus .. ..	11	4	—	—	5	2	—		
Head .. ..	20	8	—	—	9	2	1		
Other sites ..	17	3	—	—	12	2	—		
Patients treated in 1932. Condition—December, 1938.									
Uterus .. ..	15	1	—	—	14	—	—		
Head .. ..	29	16	—	—	11	2	—		
Other sites ..	13	2	—	—	10	1	—		
Patients treated in 1933. Condition—December, 1938.									
Uterus .. ..	17	8	—	—	8	1	—		
Head .. ..	31	16	3	—	10	2	—		
Other sites ..	7	1	—	—	5	1	—		
Patients treated in 1934. Condition—December, 1938.									
Uterus .. ..	23	9	—	—	13	1	—		
Head .. ..	38	24	1	—	9	3	1		
Other sites ..	13	5	—	—	7	1	—		
Patients treated in 1935. Condition—December, 1938.									
Uterus .. ..	16	7	—	—	7	2	—		
Head .. ..	24	12	3	—	9	—	—		
Other sites ..	9	—	—	—	8	—	1		
Patients treated in 1936. Condition—December, 1938.									
Uterus .. ..	23	11	1	—	10	1	—		
Head .. ..	38	25	3	—	10	—	—		
Other sites ..	12	4	—	—	8	—	—		
Patients treated in 1937. Condition—December, 1938.									
Uterus .. ..	28	19	1	—	7	—	1		
Head .. ..	22	17	2	—	3	—	—		
Other sites ..	6	3	1	—	2	—	—		
Patients treated in 1938. Condition—December, 1938.									
Uterus .. ..	22	10	7	—	2	3	—		
Head .. ..	27	23	2	—	—	—	2		
Other sites ..	17	8	2	—	5	1	1		

TABLE III.—GROWTHS OF THE FACE, LIPS, ETC.

Year	No. Treated	Alive at the end of									Died of Cancer by end of									Lost Sight of by end of									Survival Rates at the end of									
		1st yr.	2nd yr.	3rd yr.	4th yr.	5th yr.	6th yr.	7th yr.	8th yr.	9th yr.	1st yr.	2nd yr.	3rd yr.	4th yr.	5th yr.	6th yr.	7th yr.	8th yr.	9th yr.	1st yr.	2nd yr.	3rd yr.	4th yr.	5th yr.	6th yr.	7th yr.	8th yr.	9th yr.	%	%	%	%	%	%	%	%		
1930	26	25	22	18	17	16	16	14	12	11	1	4	6	8	10	10	12	13	14	—	—	2	1	—	—	—	—	1	1	96	85	69	65	62	62	54	46	42
1931	20	20	17	18	18	17	12	10	9	—	—	2	2	2	2	7	9	9	—	—	—	1	—	—	1	1	2	—	100	85	90	90	85	60	50	45	—	
1932	29	29	24	24	23	19	18	16	—	—	—	2	4	5	10	11	11	—	—	—	—	3	1	1	—	—	2	—	100	83	83	79	67	62	55	—	—	
1933	31	24	24	22	22	21	19	—	—	—	4	5	6	9	9	10	—	—	—	—	3	2	3	—	1	2	—	—	77	77	71	71	68	61	—	—	—	
1934	38	32	32	32	28	26	—	—	—	—	3	5	6	9	9	—	—	—	—	—	3	1	—	1	3	—	—	—	84	84	84	74	68	—	—	—	—	
1935	24	21	18	15	15	—	—	—	—	—	2	6	9	9	—	—	—	—	—	—	1	—	—	—	—	—	—	—	88	75	63	63	—	—	—	—	—	
1936	38	33	31	28	—	—	—	—	—	—	5	7	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	87	82	73	—	—	—	—	—	—	
1937	22	22	19	—	—	—	—	—	—	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	100	86	—	—	—	—	—	—	—	
1938	27	27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	100	—	—	—	—	—	—	—	—	

GROWTHS OF OTHER SITES.

1930	10	9	5	4	1	1	1	—	—	—	—	1	4	6	9	9	10	10	10	10	10	—	1	—	—	—	—	—	90	50	40	10	10	—	—	—	—
1931	17	15	10	8	6	5	5	3	3	—	2	5	7	8	10	12	12	12	—	—	—	2	2	3	2	—	2	—	88	59	47	35	29	18	18	—	—
1932	13	13	8	6	5	4	3	2	—	—	—	5	6	8	9	10	10	—	—	—	—	—	—	1	—	1	—	—	100	62	46	38	31	23	15	—	—
1933	7	5	5	2	2	1	1	—	—	—	1	1	4	5	5	5	—	—	—	—	—	—	1	1	—	1	1	—	71	71	29	29	14	14	—	—	—
1934	13	9	5	7	6	5	—	—	—	—	3	7	6	6	7	—	—	—	—	—	—	—	1	1	—	1	—	—	69	38	54	46	38	—	—	—	—
1935	9	8	3	1	1	—	—	—	—	—	1	6	8	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	89	33	11	11	—	—	—	—	—
1936	12	8	7	4	—	—	—	—	—	—	4	5	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	67	58	33	—	—	—	—	—	—
1937	6	5	4	—	—	—	—	—	—	—	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	83	67	—	—	—	—	—	—	—
1938	17	11	—	—	—	—	—	—	—	—	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	65	—	—	—	—	—	—	—	—



TABLE IV.—CANCER OF

(a) Year	(b) No. treated	(c) Alive at the end of									(d) Died of Cancer by end of								
		1st yr.	2nd yr.	3rd yr.	4th yr.	5th yr.	6th yr.	7th yr.	8th yr.	9th yr.	1st yr.	2nd yr.	3rd yr.	4th yr.	5th yr.	6th yr.	7th yr.	8th yr.	9th yr.
1930: Stage I	3	2	3	3	3	3	3	2	2	2	—	—	—	—	—	—	1	1	1
" II	2	2	2	2	2	1	1	1	1	1	—	—	—	—	1	1	1	1	1
" III	3	3	1	1	—	—	—	—	—	—	—	2	2	3	3	3	3	3	3
" IV	2	1	—	—	—	—	—	—	—	—	1	2	2	2	2	2	2	2	2
Total ..	10	8	6	6	5	4	4	3	3	3	1	4	4	5	6	6	7	7	7
1931: Stage I	5	5	5	5	4	4	4	3	3	—	—	—	—	1	1	1	2	2	—
" II	3	3	2	3	2	2	2	2	1	—	—	—	—	1	1	1	1	1	—
" III	3	3	—	—	—	—	—	—	—	—	—	1	2	2	2	2	2	2	—
" IV	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total ..	11	11	7	8	6	6	6	5	4	—	—	1	2	4	4	4	5	5	—
1932: Stage I	2	2	2	2	2	1	—	—	—	—	—	—	—	—	1	2	2	—	—
" II	4	4	3	2	2	2	2	1	—	—	—	1	2	2	2	2	3	—	—
" III	7	5	1	1	1	—	—	—	—	—	2	4	6	6	7	7	7	—	—
" IV	2	2	1	—	—	—	—	—	—	—	—	1	2	2	2	2	2	—	—
Total ..	15	13	7	5	5	3	2	1	—	—	2	6	10	10	12	13	14	—	—
1933: Stage I	3	3	3	3	3	3	2	—	—	—	—	—	—	—	—	—	—	—	—
" II	10	7	6	6	4	5	5	—	—	—	3	4	4	5	5	5	—	—	—
" III	3	1	1	1	1	1	1	—	—	—	2	2	2	2	2	2	—	—	—
" IV	1	1	1	—	—	—	—	—	—	—	—	—	1	1	1	1	—	—	—
Total ..	17	12	11	10	8	9	8	—	—	—	5	6	7	8	8	8	—	—	—
1934: Stage I	4	4	4	4	4	3	—	—	—	—	—	—	—	—	—	—	—	—	—
" II	11	7	6	6	6	5	—	—	—	—	2	3	5	5	6	—	—	—	—
" III	8	5	3	2	1	1	—	—	—	—	2	3	6	7	7	—	—	—	—
" IV	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total ..	23	16	13	12	11	9	—	—	—	—	4	6	11	12	13	—	—	—	—
1935: Stage I	6	6	5	5	3	—	—	—	—	—	—	1	1	1	—	—	—	—	—
" II	8	6	5	4	4	—	—	—	—	—	2	3	4	4	—	—	—	—	—
" III	2	2	—	—	—	—	—	—	—	—	—	2	2	2	—	—	—	—	—
" IV	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total ..	16	14	10	9	7	—	—	—	—	—	2	6	7	7	—	—	—	—	—
1936: Stage I	7	7	6	6	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—
" II	12	11	8	6	—	—	—	—	—	—	1	4	6	—	—	—	—	—	—
" III	4	3	1	—	—	—	—	—	—	—	1	3	3	—	—	—	—	—	—
" IV	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total ..	23	21	15	12	—	—	—	—	—	—	2	8	10	—	—	—	—	—	—
1937: Stage I	2	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
" II	24	22	19	—	—	—	—	—	—	—	2	5	—	—	—	—	—	—	—
" III	2	1	—	—	—	—	—	—	—	—	1	2	—	—	—	—	—	—	—
" IV	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total ..	28	25	21	—	—	—	—	—	—	—	3	7	—	—	—	—	—	—	—
1938: Stage I	5	3	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—
" II	13	10	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—
" III	4	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
" IV	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total ..	22	17	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—





## APPENDIX C.

## REPORT ON THE WORK OF THE PATHOLOGICAL BRANCH.

BY J. C. TULL, M.D., F.R.C.P., *Government Pathologist.*

The work during 1938 was much the same as in 1937, the total number of specimens examined, excluding medico-legal ones, and autopsies, being 15,035, as compared with 15,699 in 1937, and 10,031 in 1936. The epidemic of meningococcus meningitis waned considerably during the year from April onwards.

## NUMBER OF SPECIMENS EXAMINED EACH MONTH.

January .. ..	1,370	July .. ..	923
February .. ..	1,663	August .. ..	1,572
March .. ..	1,890	September .. ..	1,243
April .. ..	1,708	October .. ..	716
May .. ..	1,380	November .. ..	706
June .. ..	1,004	December .. ..	860

## CLINICAL LABORATORY INVESTIGATIONS.

*Blood Films for Malaria Parasites.*—397 were examined against 483 in 1937. In 27 *P. vivax* was present (17 in 1937); in 22 *P. falciparum* was present (105 in 1937); and *P. malariae* was present in one (2 in 1937).

As films for malaria parasites are examined in other places besides the Central Laboratory these figures in no way represent the incidence of malaria in the Island.

*Urine.*—770 specimens were examined, as compared with 555 the previous year.

*Sputa.*—711 specimens were submitted for examination, against 901 in 1937. In 299 of these acid fast bacilli were found, either by direct examination, or by the antiformin concentration method.

In 1937 acid fast bacilli were present in 639 specimens.

*Stools.*—99 specimens were examined, as compared with 144 the previous year. No ova were found, and no *amoebae histolytica* were present.

*Urethral and Cervical Smears for Gonococci.*—817 were examined (1,098 in 1937). The gonococci was present in 241 (355 in 1937).

*Smears from Spleens of Rats for presence of B. pestis.*—396 were examined (735 in 1937). In none was the *B. pestis* present. The smears are made from rats caught at the various ports.

*Blood Cell Counts and Differential Counts.*—120 were made, compared with 75 in 1937. In 14 instances varying degrees of *poikilocytosis*, *polychromatophilia*, *anisocytosis*, and *basophilic stippling* were found. *Normoblasts* were found in twelve instances, and *megablasts* in 5. Two cases of myeloid leukaemia were observed.

*Leprosy.*—128 nasal swabs, and 23 skin clips were examined for the presence of *B. leprae* (81 were examined in 1937). 90 of the nasal swabs and 9 of the skin clips were positive to leprosy.

*Cerebro-spinal Fluid.*—In 1937 there were 725 specimens submitted for evidence of meningococcus meningitis. In 1938 there were 276 specimens submitted. 82 of the 276 arrived so hopelessly contaminated that pure cultures of the meningococcus were impossible. Meningococci were identified in 121 cases; *polymorphonuclears*, without meningococci, predominated in 93 cases; *lymphocytes* predominated in 40 cases; and in 16 pneumococci were present. This unusual occurrence of pneumococci in cerebro-spinal fluid is being investigated. In one instance both pneumococci and meningococci were isolated from a case at autopsy, although pneumonia was not present. As in the previous year the majority of cases of meningococcus meningitis examined in the Laboratory occurred in the first four months of the year: namely 55 in January, 55 in February, 74 in March and 52 in April.

*Naso-pharyngeal Swabs for presence of Meningococci.*—Swabs from 6,331 persons were examined, compared with 5,901 in 1937. 283 of these persons were found to be harbouring the meningococcus, approximately 4.5 per cent. From a group of 500 miners who were not known to be contacts 33 were positive, or approximately 6 per cent. Although such a finding is surprising, it is explained by the fact that in the latter group the swabs were taken in the height of summer, and inoculated on to suitable media within two hours, and incubated at once, while in the former case the swabs were taken mostly in the cold months, had to be transported as many as 100 miles, and often as many as 24 hours elapsed before they were inoculated and incubated. The reason for this is that there is only one bacteriological laboratory in the Island, situated centrally in Nicosia, and transport facilities from distant villages are not numerous in some cases. The experiment of impregnating swabs with suitable media, and trying to obtain some incubation during transport was not successful.



*Cultures for Identification of Organisms from Pus.*—32 were examined, and vaccines were made from 14.

*Blood Cultures.*—From 16 of these the *B. typhosus* was grown in three.

*T.A.B. Vaccine.*—Four litres were made and distributed through the Health Branch.

*Complement Fixation Tests.*—The Wassermann Reaction was carried out on 3,613 sera, as compared with 3,810 in 1937. 660 of these sera were completely positive (19% approximately) and 54 were partially positive (1.5% approximately). In 1937 of 3,810 sera 745 (19.5% approximately) were positive.

The Weinberg test for hydatid disease was done on six sera, of which one was positive.

*Agglutination Test for the Typhoid Group.*—643 sera were examined as compared with 736 in 1937. Of these 220 were positive to *B. typhosus* in a dilution of at least 1 in 250; 48 were similarly positive to *B. paratyphosus A*; and 84 to *B. paratyphosus B*. Of the 643 sera examined 308 were submitted in the months June to September.

*Drinking Waters.*—187 samples were submitted for bacteriological examination for suitability for drinking purposes, as compared with 119 in 1937. All these samples were from wells or chains of wells, which constitute the drinking water supply all over the Island. An arbitrary standard of absence of the *B. coli* group in 25 cc. of the sample submitted is regarded as constituting its suitability for drinking purposes bacteriologically. Of the 187 samples 104 were submitted during the months of May to September. 46 of the 187 samples were negative to *B. coli* in 25 cc.; 10 were negative in 10 cc.; 7 in 5 cc.; 35 in 1 cc.; 3 in 0.5 cc.; and 63 in 0.1 cc.

*Histology.*—410 paraffin blocks were cut from 129 pieces of tissue submitted for histological diagnosis, compared with 345 from 109 pieces in 1937.

The following tumours were identified:—

*Malignant.*—(a) *Epithelioma*: tongue, one; cervix uteri, one; abdominal wall, one; anus, one; and metastatic in gland, one.

(b) *Carcinoma*: breast, six; (duct, two; scirrhus, four); adeno-carcinoma, one; metastatic in axillary gland, one.

(c) *Sarcoma*: spindle cell, four; round cell, two; melanotic, one; and fibro-sarcoma, one.

*Benign.*—breast, five; body of uterus, four; cervix uteri, two; dentigerous cyst, one. One meningioma, one epulis, and two rodent ulcers were examined.

Other interesting specimens examined histologically were: Colloid goitre (two); thyroglossal cyst (one); polycystic kidney (one); Hodgkins disease (one); splenomegaly (one); branchial cyst (one); osteoma skull (one); hydatid cyst of brain (one).

Tuberculous lesions were recognized in the following tissues: Epididymis (one); glands neck (four); great trochanter (one); nose (one); larynx (one); pelvis of kidney (one); appendix (one); urinary bladder (one); and glands axilla (one).

Chronic inflammatory lesions of undetermined cause were found in 39 instances. Thirteen pieces of tissue were examined for the Veterinary Department.

*Medico-legal.*—19 post-mortem examinations were carried out at the request of the Police. The main causes of death as ascertained by autopsy were: senility, 7; fracture skull with cerebral haemorrhage, 3; rupture abdominal viscera, with internal haemorrhage from motor car accident, 1; stab wounds of liver and chest, 2; rupture spleen with internal haemorrhage, 1; rupture lungs and liver by crush from train, 1; drowning, 5; acute food poisoning, 2; peritonitis from perforated appendix, 2; ruptured ectopic gestation with internal haemorrhage, 1; and strangulation by throttling, 1.

The protracted case in which a young man was hit on the head with a heavy instrument, crushing his skull and brain; subsequently dismembered and mutilated; and his remains anchored by stones and rope in a misused well, where they remained for 3 to 4 months, came to an end during the year. The murderer was convicted and paid the extreme penalty. This case was a difficult one from a medico-legal standpoint, and the Pathologist received the thanks of His Excellency the Governor for his work in connection with the investigation.

During the year the pelt and head of a moufflon were examined, for the cause of death; the age of the animal; and the length of time elapsing since the animal's death.

*General.*—The Pathologist represented the Colony at the 2nd International Conference in Cairo in March. He visited the clinical laboratories in Larnaca, Famagusta, Limassol and Paphos twice during the year for the purpose of making sure that the necessary equipment, etc., was in good order, and to encourage the staffs at these places to carry out for themselves the simpler laboratory examinations.

Dr. I. H. Maclean, of the Inoculation Department of St. Mary's Hospital, London, was attached to this Branch from 2nd January to 26th April. He carried out certain investigations into the epidemic of meningococcus meningitis, and his help and advice have been much appreciated.

There has been no change in the staff of this Branch. The Laboratory Assistant, Clerk, and cleaner have all worked well and willingly.



## APPENDIX D.

ANNUAL REPORT UPON THE WORK OF THE GOVERNMENT  
LABORATORY FOR THE YEAR 1938.BY MR. H. ATKINSON, *Government Chemist.*

The most notable event of the year was the enactment of a new Food and Drugs Law on 24th June and to cope with the additional analytical work involved the equipment of the laboratory has been augmented considerably. New apparatus includes a polarimeter, an electric furnace and new standard apparatus for the analysis of milk and milk products.

There are no promotions or changes of staff during the year.

The total number of samples analysed was 1,043 as compared with 1,462 in the previous year. This decrease is mainly accounted for by a decrease in the number of criminal exhibits from 355 to 163 and food and drugs samples from 776 to 612. Owing to the more detailed examination of foods for conformity to the requirements of the Regulations and to the improved equipment in the laboratory for the detection of the less obvious forms of sophistication the amount of quantitative analytical work was appreciably higher than in earlier years.

The samples for the year 1938 are divided into official and non-official samples.

## 1. FOOD AND DRUGS.

*Official Samples.*

Table I shows the total number of samples analysed and the percentage of adulteration found in each of the six Districts into which the Island is divided for the purpose of the administration of the Food and Drugs Law.

TABLE I.

<i>District</i>	<i>Samples analysed</i>	<i>Genuine</i>	<i>Below Standard</i>	<i>Proportion % below Standard</i>
Nicosia .. ..	82	65	17	20.7
Famagusta .. ..	137	104	33	24.0
Larnaca .. ..	49	46	3	6.1
Limassol .. ..	164	145	19	11.5
Paphos .. ..	116	112	4	3.4
Kyrenia .. ..	64	59	5	7.8
Total .. ..	612	531	81	13.2

The percentage of samples falling below standard is 13.2, showing a considerable increase on the previous year's adulteration rate of 5.5 per cent. These figures are not strictly comparable since they now include samples of foods which fail to comply with the Regulations made under section 19 of the Law. Of the 81 samples of foods below standard 6 were decomposed and unfit for food, 41 contained foreign matters, two were misnamed and the remainder failed to comply with Regulations prescribing their composition.

Olive oil as usual supplies a large proportion of the samples found to be below standard. Of the 40 unsatisfactory samples 8 were mixed with oil foreign to olive oil, and 32 had an acidity higher than the limit laid down in the Regulations.

Butter, including butter fat, shows a high proportion of adulteration. This is mainly attributable to the failure to comply with the provisions of section 9 of the Law with regard to labelling of butter and butter fat substitutes. In the absence of adequate labels margarine and edible fat are liable to be sold as butter and butter fat respectively.

The adulterated samples of coffee, as in past years, contained roasted legumes or cereals.

The number of fresh milk samples submitted for analysis was again extraordinarily low. The adulteration figures recorded in the Table has therefore no real significance in reflecting the quality of the milk retailed in the Island.

The number of samples of fresh milk examined in the year 1937 in some other countries are given here for comparison:—

British Guiana .. ..	4,238
Palestine .. ..	3,985
Trinidad and Tobago .. ..	322
Ceylon .. ..	496



The old method of haphazard sampling of foods and drugs, largely left to the discretion of the sampling officers, has to some extent been substituted by concentrating on those foods which experience has shown are liable to be adulterated in a manner not easily detected by the consumer. Since the vote available for the purchase of foods and drugs samples is strictly limited, this is considered to have a greater deterrent effect than random sampling.

The new Food and Drugs Law came into force in June, but it was not until some time later that the machinery available for procuring samples could be more closely adapted to the requirements of the new Law.

It has already become evident that certain modifications are desirable in the Regulations made under the Law, particularly with regard to the labelling of packages of foods.

Evidence was given in Court on two occasions in connection with prosecutions under the Food and Drugs Law.

The number of prosecutions brought before the Court during the year was 54 and the fines inflicted amounted to £23. 3s.

## 2. CRIMINAL INVESTIGATIONS.

A total of 163 exhibits were examined in connection with criminal cases, classified in Table II.

TABLE II.—CRIMINAL EXHIBITS.

Exhibits in murder and stabbing cases .. .. .	51
Exhibits in rape and assault cases .. .. .	18
Exhibits in poisoning cases, and poisons seized from unauthorized persons .. .. .	52
Exhibits in counterfeit coins .. .. .	29
Exhibit in maliciously killing animal .. .. .	1
Exhibits in Dangerous Drugs .. .. .	3
Exhibits under Section 2, Law 12 of 1892 (merchandise marks) .. .. .	4
Exhibits in arson cases .. .. .	5
<b>Total .. .. .</b>	<b>163</b>

The number of exhibits submitted in 34 criminal cases shows a considerable decrease compared with 355 exhibits of the previous year.

In poisoning cases the following substances were found. Potassium cyanide, arsenic, copper acetoarsenite, iodine and a salt of copper. Three packets sent for investigation were found to contain opium.

In a bottle containing charred wood seized in an arson case a volatile petroleum product was detected.

In a counterfeiting case the coins were found to contain a high proportion of copper. They were yellowish in colour and very crudely made.

Blasting powder was identified in 3 exhibits seized in cases of offences against the Explosives and Petroleum Law.

In a case of attempted homicide pieces of cloth found in the possession of a suspect were compared with pieces of cloth which had apparently been used as gun wadding.

Expert evidence was given by the Chemist on 8 occasions in the Magisterial and Assize Courts of the Colony in connection with criminal cases.

## 3. WATERS.

Altogether 123 samples were examined of which 67 were found to be chemically potable water supplies. The other 56 samples were either saline, hard, or contaminated with organic impurities, or a combination of these.

## 4. AGRICULTURAL.

Nineteen samples were analysed under this heading including carob germ for proteins and samples of sprayed fruit for the estimation of arsenic.

## 5. CUSTOMS.

Nine samples were submitted for analysis, including Cyprus salt, butter, edible fat and sugar. The sample of salt was sent for a complete analysis, and the different samples of foodstuffs for conformity to the Regulations made under the Food and Drugs Law, 1938.

## 6. MISCELLANEOUS.

Thirteen samples of alcohol were examined for the control of alcohol supplies to the Medical Department. All were found to comply with the requirements of the specification.



Samples of stones and metal were submitted by the Director of Antiquities for identification. A fragment of a silver diadem was found to consist almost entirely of silver chloride and contained very little metallic silver.

Of two samples of ruling ink sent by the Government Printing Office, one formed an insoluble lake when allowed to remain in contact with the metals of which the trough was made.

Samples of cows' milk were examined for the Veterinary Department in an investigation to discover what modification in yield and composition occurs when the animals are taken to higher altitudes. Three animals viscera submitted by this Department were examined for poison with negative results.

A sample of "diabetic biscuits" was found to contain starch in similar amount to that of ordinary biscuit.

Two samples of ground water were sent by the Director of Public Works for analysis to ascertain whether they were likely to have a detrimental effect on bitumen emulsions. Both were highly saline and contained magnesium salts.

Samples of olive oil and native bread were examined for their nutrition value. The only material difference in the values for the bread from different sources was attributable to their water content.

Samples of water from the sulphur springs at Ayii Anarghyri were received for analysis and samples of water taken from the sea-bed at Dhavlos were examined for their mineral constituents and hydrogen sulphide. A sample of gas emanating from the sea-bed at this spot was also examined.

Work of an advisory nature not mentioned under any of the above headings was undertaken for the Comptroller of Customs, Director of Agriculture, Water Engineer, Registrar of Co-operative Societies, Tuberculosis Officer, Legal Department and Nutrition Committee.

#### 7. SCIENTIFIC EDUCATION.

The usual examination for the Government Certificate in Chemistry was held at the Laboratory on the 10th January, 1938. Three candidates presented themselves, two of whom passed the examination and were awarded the Government Certificate.

The Government Chemist was a member of the Board of Examiners for Cyprus of the Royal Sanitary Institute.

#### 8. OTHER DUTIES.

The Government Chemist acted as President on the following Boards of Survey :—

(a) Agricultural Stores ; (b) Veterinary Stores.

#### 9. NON-OFFICIAL SAMPLES.

35 samples were examined under this heading. Five animals' viscera contained arsenic, two contained copper and arsenic, two contained soluble salts of barium, and one contained a very small amount of an unidentified volatile alkaloid resembling nicotine. In four samples the findings were negative.

Six samples of olive oil were sent for examination for conformity to the requirements of the Regulations made under the Food and Drugs Law, 1938.

Six samples of water were analysed for their potability and two samples of condensed milk were examined for fitness for human consumption.

#### STAFF.

It is with pleasure that I record my thanks for the loyal assistance of the small staff of the Laboratory during the year.



## APPENDIX E.

## SOCIAL WORK, 1938.

BY ETHEL F. PASSINGHAM, *Honorary Social Worker.*

The "Mana" Society Day Nursery for the children of working mothers continues to do good work. The number of children in attendance at the Day Nursery varies between 36 and 50. Each month the children attend the Infant Welfare Clinic at the Government Hospital, Nicosia, for medical inspection. Recommendation was made to the Director of Medical Services to obtain an increased supply of milk from the Government Farm at Athalassa and this was subsequently arranged.

Toys were collected at the end of the year, and distributed amongst the children of the "Mana" Society, the Anti-Tuberculosis League and known cases of poor children.

The Committee of the "Mana" Society, through their Treasurer, expressed their appreciation.

Through the Care-Committee of the Philip Dispensary for Tuberculosis greater attention was given to the children of destitute tubercular patients. During the year 36 children were given relief at a cost of £95. 8s. 2p. There was a marked improvement in the physique, general health and weight of the children.

The mothers were instructed in the care of babies and were shown methods of feeding and bathing the babies; how to prepare the food and care of the feeding bottles; the care of the eyes; the necessity for clean clothes and the need for fresh air and sunshine.

The Turkish Charity for children, the "Yardimji Analar Kurumu" functioned during 1938. In the "Kurum" 14 poor Turkish children were maintained. It is hoped to extend the work of this charity when funds permit.

At the end of January an Infant Welfare Centre was opened in Limassol.

Enquiries were made into cases of destitute illegitimate children and arrangements were made to find work for some of the mothers. In one particularly bad case, from Lapithos, an endeavour was made to get the child placed in the Orphanage in Nicosia. In the towns, whilst the mothers are at work, provision is made at the Day Nursery for the children.

A reported case of cruelty to two adopted children in a house in Nicosia was brought to the notice of the Police.

Another case, reported from the Young Women's Christian Association, London, was that of a Swiss girl, who was pregnant and desirous of proceeding to Cyprus to persuade the father of the child, a resident in Famagusta to marry her. After investigation it was advised that the girl should not be allowed to proceed.

In the case of a girl, under 16 years, who it was alleged had been taken to a brothel at Larnaca, it was advised that pending her return to her village she should be housed at the house of the Mukhtar.

## TALKS.

During the year health talks and lectures on the work of the St. John Ambulance Association were given at the:—

Melkonian Institute; The Young Women's Christian Association; The Shakespeare School; St. Joseph Convent, Nicosia.

## PUBLICATIONS.

The publication of *Cyprus Public Health* (5,000 copies monthly) in three languages was continued in 1938, with the exception of July, August and September. Copies of this publication are sent to all elementary and secondary schools, the Commissioners, Mayors, Mukhtars, Clubs, Midwives, Dentists and all persons who have sent a donation of 5s. to the League. The pamphlet is also sent in exchange to the principal Colonies of the British Empire, to the United States of America, Greece, Turkey, etc.

Many appreciative letters referring to the educational value of the pamphlet were received.

## CYPRUS ANTI-TUBERCULOSIS LEAGUE.

Much work was done in connection with the League which is made possible by the sale of Christmas Seals of which 500,000 were distributed.

## ST. JOHN AMBULANCE ASSOCIATION.

First Aid and Home Nursing Classes were organized at the Philip Dispensary for Tuberculosis in January and October.

Examinations in both were held in May and December.



## APPENDIX F.

TABLE I.

## ESTABLISHMENT OF THE MEDICAL DEPARTMENT DURING 1938.

MEDICAL STAFF.		
1 Director of Medical Services.	..	1 Honorary Radiologist.
1 Specialist (Surgeon).	..	1 Anaesthetist.
1 Government Pathologist.	..	3 Travelling Oculists.
1 Tuberculosis Officer.	..	3 Medical Officers, 1st Grade.
6 District Medical Officers.	..	15 Medical Officers, 2nd Grade.
1 Government Chemist.	..	1 School Medical Officer.
3 Honorary Physicians.	..	6 District Surgeons.
1 Honorary Surgeon.	..	1 Temporary Medical Officer.
1 Medical Superintendent, Mental Hospital.	..	4 Honorary Dentists.
3 Honorary Oculists.	..	1 Dental Officer.
1 Honorary Laryngologist.		
1 Honorary Ear, Nose and Throat Specialist.		

## ENGLISH NURSING STAFF.

4 Matrons.	..	7 Nursing Sisters.
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## OTHER MEDICAL AND SANITARY STAFF.

3 Health Officers.	..	8 Male Orderlies.
1 Chief Sanitary Inspector.	..	20 Probationer Nurses.
6 District Sanitary Inspectors.	..	1 Head Warder, Mental Hospital.
7 Sanitary Inspectors, 1st Grade.	..	14 Mental Hospital Attendants.
17 Sanitary Inspectors, 2nd Grade.	..	3 Guards, Leper Farm.
29 Compounders.	..	1 Assistant to Chemist.
1 Housekeeper, Nicosia General Hospital.	..	1 Assistant to Pathologist.
6 Staff Nurses.	..	1 Government Midwife.

## CLERICAL STAFF.

1 Clerk, 1st Grade.	..	2 Clerks, 3rd Grade.
1 Clerk, 2nd Grade.	..	5 Clerks, 4th Grade.

There are, in addition to the above, Cooks, Servants, Kitchen-boys, House-maids, Ward-maids, Charwomen, Sanitary Labourers, Attendants, Messengers, etc., etc.

## APPENDIX G.

TABLE II.  
FINANCIAL.  
MEDICAL DEPARTMENT.

EXPENDITURE, 1938.								£	s.	p.
Personal Emoluments .. .. .	..	..	..	..	..	..	..	26,426	9	3
Other Charges :—										
Wages :—										
Central Hospital, Nicosia .. .. .	..	..	..	..	..	..	..	526	9	6
Sanatorium, Nicosia .. .. .	..	..	..	..	..	..	..	108	19	4
Limassol Hospital .. .. .	..	..	..	..	..	..	..	158	15	8
Leper Farm .. .. .	..	..	..	..	..	..	..	500	17	3
Mental Hospital .. .. .	..	..	..	..	..	..	..	243	0	0
Government Laboratories .. .. .	..	..	..	..	..	..	..	144	12	0
Food, Clothing and Miscellaneous :—										
Central Hospital, Nicosia .. .. .	..	..	..	..	..	..	..	2,753	16	0
Sanatorium, Nicosia .. .. .	..	..	..	..	..	..	..	1,451	8	4
Limassol Hospital .. .. .	..	..	..	..	..	..	..	918	2	4
Mental Hospital .. .. .	..	..	..	..	..	..	..	2,457	18	0
Leper Farm .. .. .	..	..	..	..	..	..	..	2,588	7	6
Drugs and Surgical Supplies .. .. .	..	..	..	..	..	..	..	5,097	3	0
Care of Healthy Children of Lepers .. .. .	..	..	..	..	..	..	..	110	0	2
Extra Assistance :—										
Medical .. .. .	..	..	..	..	..	..	..	2,639	15	5
Nursing .. .. .	..	..	..	..	..	..	..	666	2	2
Prevention of Diseases .. .. .	..	..	..	..	..	..	..	5,146	16	5
Rat Destruction .. .. .	..	..	..	..	..	..	..	82	8	2
Midwifery .. .. .	..	..	..	..	..	..	..	156	4	4
Venereal Clinics .. .. .	..	..	..	..	..	..	..	1,344	19	4
Social Work .. .. .	..	..	..	..	..	..	..	66	10	0
Chemical and Equipment of Laboratories .. .. .	..	..	..	..	..	..	..	159	17	0
The Food and Drugs Law, 1926 .. .. .	..	..	..	..	..	..	..	15	13	0
Remuneration to Examiners in Pharmacy .. .. .	..	..	..	..	..	..	..	6	0	0
Trachoma Nursing Service .. .. .	..	..	..	..	..	..	..	187	18	6
Contributions :—										
Local Hospitals .. .. .	..	..	..	..	..	..	..	2,221	15	4
Other .. .. .	..	..	..	..	..	..	..	574	19	7
Hospital Equipment .. .. .	..	..	..	..	..	..	..	244	5	3
Books and Periodicals .. .. .	..	..	..	..	..	..	..	36	3	5
Uniforms .. .. .	..	..	..	..	..	..	..	220	15	0
Travelling .. .. .	..	..	..	..	..	..	..	3,259	13	1
Rent .. .. .	..	..	..	..	..	..	..	153	10	0
Lighting, Heating and Electric Power .. .. .	..	..	..	..	..	..	..	554	0	7
Training of Medical Department Officials .. .. .	..	..	..	..	..	..	..	60	0	1
Incidentals .. .. .	..	..	..	..	..	..	..	95	19	1
Maintenance of Ambulance .. .. .	..	..	..	..	..	..	..	175	8	4
Special Expenditure :—										
Laboratory Equipment .. .. .	..	..	..	..	..	..	..	238	7	7
Rural Welfare Work .. .. .	..	..	..	..	..	..	..	148	14	4
Total .. .. .	..	..	..	..	..	..	..	£35,515	8	2
Grand Total .. .. .	..	..	..	..	..	..	..	£61,941	17	5

## REVENUE.

The total revenue of the Medical and Sanitary Department, as shown below, amounted to £6,031. 2s. 4p.

	£	s.	p.
1. Sale of Medicines .. .. .	1,255	5	0
2. Hospital Receipts .. .. .	2,472	4	0
3. Other .. .. .	1,090	4	0
4. Chemical and Bacteriological Fees .. .. .	152	14	0
5. Registration of Diplomas .. .. .	112	18	0
6. Quarantine Dues and Health Certificates .. .. .	947	16	8
Total .. .. .	£6,031	2	4



## APPENDIX H.

## RETURN OF DISEASES AND DEATHS FOR THE YEAR 1938.

Diseases	IN-PATIENTS					OUT-PATIENTS	
	Remaining in Hospital at end of 1937	Yearly Total		Total Cases treated	Remaining in Hospital at end of 1938	Male	Female
		Admis- sions	Deaths				
I. EPIDEMIC, ENDEMIC, AND INFECTIOUS DISEASES.							
1. Enteric Group :—							
(a) Typhoid Fever .. ..	13	190	28	203	15	101	96
(b) Paratyphoid A. .. ..	—	6	—	6	—	2	2
(c) Paratyphoid B. .. ..	—	—	—	—	—	2	1
(d) Type not defined .. ..	—	—	—	—	—	5	6
2. Typhus .. ..	—	—	—	—	—	—	—
3. Relapsing Fever .. ..	—	—	—	—	—	—	—
4. Undulant Fever .. ..	—	—	—	—	—	—	—
5. Malaria :—							
(a) Tertian .. ..	3	275	4	278	6	3,862	3,757
(b) Quartan .. ..	—	34	2	34	—	924	875
(c) Aestivo-autumnal .. ..	1	41	—	42	—	182	180
(d) Cachexia .. ..	—	65	—	65	—	366	383
(e) Blackwater .. ..	—	3	—	3	—	2	3
6. Small-pox :—							
Alastrim .. ..	—	—	—	—	—	—	—
7. Measles .. ..	—	1	—	1	—	2	2
8. Scarlet Fever .. ..	—	1	—	1	—	1	—
9. Whooping Cough .. ..	—	2	—	2	—	623	634
10. Diphtheria .. ..	—	16	4	16	—	4	1
11. Influenza .. ..	—	55	2	55	1	2,035	1,646
12. Miliary Fever .. ..	—	—	—	—	—	—	—
13. Mumps .. ..	—	1	—	1	—	10	5
14. Cholera .. ..	—	—	—	—	—	—	—
15. Epidemic diarrhoea .. ..	—	—	—	—	—	—	—
16. Dysentery :—							
(a) Amoebic .. ..	—	1	1	1	1	4	2
(b) Bacillary .. ..	—	14	—	14	—	8	8
(c) Undefined or due to other causes .. ..	—	—	—	—	—	—	4
17. Plague :—							
(a) Bubonic .. ..	—	—	—	—	—	—	—
(b) Pneumonic .. ..	—	—	—	—	—	—	—
(c) Septicæmic .. ..	—	—	—	—	—	—	—
(d) Undefined .. ..	—	—	—	—	—	—	—
18. Yellow Fever .. ..	—	—	—	—	—	—	—
19. Spirochaetosis .. ..	—	—	—	—	—	—	—
Ictero-hæmorrhagica .. ..	—	—	—	—	—	—	—
20. Leprosy .. ..	—	—	—	—	—	11	1
21. Erysipelas .. ..	—	20	1	20	—	41	36
22. Acute Poliomyelitis .. ..	—	3	1	3	—	11	5
23. Encephalitis Lethargica .. ..	—	1	—	1	—	—	—
24. Epidemic Cerebro-spinal Fever .. ..	9	234	79	243	1	58	46
25. Other Epidemic Diseases :—							
(a) Rubella (German Measles) .. ..	—	—	—	—	—	—	—
(b) Varicella (Chicken-Pox) .. ..	—	3	—	3	—	98	72
(c) Kala-azar .. ..	—	2	1	2	—	—	—
(d) Phlebotomus Fever .. ..	—	2	—	2	—	—	—
(e) Dengue .. ..	—	—	—	—	—	—	—
(f) Epidemic Dropsy .. ..	—	—	—	—	—	—	—
(g) Yaws .. ..	—	—	—	—	—	—	—
(h) Trypanosomiasis .. ..	—	—	—	—	—	—	—
26. Glanders .. ..	—	—	—	—	—	—	—
27. Anthrax .. ..	—	2	—	2	—	6	1
28. Rabies .. ..	—	—	—	—	—	—	—
29. Tetanus .. ..	—	2	1	2	—	1	—
30. Mycosis .. ..	—	—	—	—	—	—	4
31. Tuberculosis, Pulmonary and Laryngeal .. ..	—	19	2	19	—	129	95
Carried forward .. ..	26	993	126	1,019	24	8,488	7,865

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1938—*contd.*

Diseases	IN-PATIENTS					OUT-PATIENTS	
	Remaining in Hospital at end of 1937	Yearly Total		Total Cases treated	Remaining in Hospital at end of 1938	Male	Female
		Admis- sions	Deaths				
Brought forward .. ..	26	993	126	1,019	24	8,488	7,865
<b>I. EPIDEMIC, ENDEMIC, AND INFECTIOUS DISEASES—<i>continued.</i></b>							
32. Tuberculosis of the Meninges or Central Nervous System ..	—	4	3	4	—	—	—
33. Tuberculosis of the Intestines or Peritoneum .. ..	1	11	1	12	—	11	20
34. Tuberculosis of Vertebral Column ..	—	2	—	2	—	5	3
35. Tuberculosis of Bones and Joints ..	1	21	—	22	2	17	4
36. Tuberculosis of other organs :—							
(a) Skin or Subcutaneous Tissue							
(Lupus) .. ..	—	4	—	4	—	7	5
(b) Bones .. ..	—	—	—	—	—	2	3
(c) Lymphatic System .. ..	—	28	2	28	—	86	138
(d) Genito-urinary .. ..	—	1	—	1	—	—	—
(e) Other organs .. ..	—	2	—	2	—	1	—
37. Tuberculosis disseminated :—							
(a) Acute .. ..	—	1	1	1	—	2	1
(b) Chronic .. ..	—	5	—	5	—	—	2
38. Syphilis :—							
(a) Early .. ..	—	11	—	11	—	143	71
(b) Late .. ..	—	—	—	—	—	150	103
(c) Tertiary .. ..	—	—	—	—	—	10	5
(d) Hereditary .. ..	—	1	—	1	—	11	36
(e) Period not indicated .. ..	—	—	—	—	—	5	2
39. Soft Chancre .. ..	—	4	—	4	—	227	19
40. A.—Gonorrhœa & its complications ..	—	5	—	5	—	542	507
B.—Gonorrhœal Ophthalmia .. ..	—	—	—	—	—	—	—
C.—Gonorrhœal Arthritis .. ..	—	9	—	9	—	20	9
D.—Granuloma Venereum .. ..	—	—	—	—	—	8	2
41. Septicæmia .. ..	—	66	10	66	—	190	108
42. Other Infectious Diseases :—							
Trypanosomiasis .. ..	—	—	—	—	—	—	—
<b>II. GENERAL DISEASES NOT MENTIONED ABOVE.</b>							
43. Cancer or other malignant Tumours of the Buccal Cavity .. ..	—	13	2	13	—	20	10
44. Cancer or other malignant Tumours of the Stomach or Liver .. ..	—	8	2	8	—	7	4
45. Cancer or other malignant Tumours of the Peritoneum Intestines, Rectum .. ..	—	7	—	7	—	1	—
46. Cancer or other malignant Tumours of the Female Genital Organs ..	2	53	4	55	1	—	49
47. Cancer or other malignant Tumours of the Breast .. ..	1	31	1	32	—	1	29
48. Cancer or other malignant Tumours of the Skin .. ..	—	58	—	58	1	30	36
49. Cancer or other malignant Tumours of Organs not specified .. ..	3	32	3	35	—	8	15
50. Tumours non-malignant .. ..	3	46	1	49	1	66	65
51. Acute Rheumatism .. ..	—	58	1	58	1	433	531
52. Chronic Rheumatism .. ..	—	47	—	47	—	611	950
53. Scurvy (including Barlow's Disease) ..	—	—	—	—	—	—	—
54. Pellagra .. ..	—	—	—	—	—	—	1
55. Beri-Beri .. ..	—	—	—	—	—	—	—
56. Rickets .. ..	—	—	—	—	—	3	2
57. Diabetes (not including Insipidus) ..	—	16	—	16	1	27	10
58. Anæmia :—							
(a) Pernicious .. ..	1	10	1	11	1	83	77
(b) Other Anæmias & Chlorosis ..	—	21	—	21	—	1,159	1,703
Carried forward .. ..	38	1,568	158	1,606	32	12,374	12,385



RETURN OF DISEASES AND DEATHS FOR THE YEAR 1938—*contd.*

Diseases	IN-PATIENTS					OUT-PATIENTS	
	Remaining in Hospital at end of 1937	Yearly Total		Total Cases treated	Remaining in Hospital at end of 1938	Male	Female
		Admis- sions	Deaths				
Brought forward .. ..	38	1,568	158	1,606	32	12,374	12,385
II. GENERAL DISEASES NOT MENTIONED ABOVE— <i>continued.</i>							
59. Diseases of the Pituitary Body ..	—	—	—	—	—	—	1
60. Diseases of the Thyroid Gland :—	—	—	—	—	—	—	—
(a) Exophthalmic Goitre ..	—	3	—	3	—	1	19
(b) Other diseases of the Thyroid Gland, Myxœdema ..	—	—	—	—	—	2	3
61. Diseases of the Para-Thyroid Glands ..	—	—	—	—	—	—	—
62. Diseases of the Thymus .. ..	—	—	—	—	—	—	—
63. Diseases of the Supra-Renal Glands ..	—	—	—	—	—	1	2
64. Diseases of the Spleen .. ..	—	18	4	18	—	18	30
65. Leukæmia :—	—	—	—	—	—	—	—
(a) Leukæmia .. ..	—	4	—	4	—	—	2
(b) Hodgkin's Disease .. ..	—	1	—	1	—	—	1
66. Alcoholism .. ..	—	—	—	—	—	37	11
67. Chronic poisoning by mineral substances (lead, mercury, etc.) ..	—	—	—	—	—	1	—
68. Chronic poisoning by organic substances (Morphia, Cocaine, etc.) ..	—	—	—	—	—	—	—
69. Other General Diseases :—	—	—	—	—	—	—	—
Auto-intoxication .. ..	—	1	1	1	—	91	80
Purpura Hæmorrhagica .. ..	—	9	—	9	—	2	3
Hæmophilia .. ..	—	—	—	—	—	4	—
Diabetes Insipidus .. ..	—	5	2	5	—	6	9
III. AFFECTIONS OF THE NERVOUS SYSTEM AND ORGANS OF THE SENSES.							
70. Encephalitis (not including Encephalitis Lethargica) .. ..	—	3	2	3	—	26	16
71. Meningitis (not including Tuberculous Meningitis or Cerebro-spinal Meningitis) .. ..	—	5	1	5	—	18	16
72. Locomotor Ataxia .. ..	—	2	—	2	—	5	2
73. Other affections of the Spinal Cord ..	—	—	—	—	—	12	3
74. Apoplexy :—	—	—	—	—	—	—	—
(a) Hæmorrhage .. ..	—	5	1	5	—	5	4
(b) Embolism .. ..	—	—	—	—	—	—	—
(c) Thrombosis .. ..	—	2	2	2	—	1	1
75. Paralysis :—	—	—	—	—	—	—	—
(a) Hemiplegia .. ..	5	12	5	17	1	54	38
(b) Other Paralyses .. ..	—	4	—	4	—	35	19
76. General Paralysis of the Insane ..	—	1	1	1	—	6	8
77. Other forms of Mental Alienation ..	—	1	—	1	—	15	20
78. Epilepsy .. ..	—	4	—	4	—	157	94
79. Eclampsia, Convulsions (non-puerperal) 5 years or over ..	—	2	1	2	—	—	—
80. Infantile Convulsions .. ..	—	—	—	—	—	1	2
81. Chorea .. ..	1	—	—	1	—	5	8
82. A.—Hysteria .. ..	—	14	—	14	—	38	488
B.—Neuritis .. ..	—	34	—	34	1	1,434	1,533
C.—Neurasthenia .. ..	2	21	—	23	1	503	640
83. Cerebral Softening .. ..	—	2	—	2	—	—	—
84. Other affections of the Nervous System, such as Paralysis Agitans ..	—	3	1	3	—	76	90
85. Affections of the Organs of Vision :—	—	—	—	—	—	—	—
(a) Diseases of the eye .. ..	—	24	—	24	—	289	291
(b) Conjunctivitis .. ..	—	5	—	5	—	2,303	2,482
(c) Trachoma .. ..	—	59	1	59	2	1,127	1,310
(d) Tumours of the eye .. ..	—	—	—	—	—	11	6
(e) Other affections of the eye ..	—	31	—	31	—	642	805
86. Affections of the Ear or Mastoid Sinus .. ..	2	56	2	58	—	927	918
Carried forward .. ..	48	1,899	182	1,947	37	20,227	21,340

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1938—*contd.*

Diseases	IN-PATIENTS					OUT-PATIENTS	
	Remaining in Hospital at end of 1937	Yearly Total		Total Cases treated	Remaining in Hospital at end of 1938	Male	Female
		Admis- sions	Deaths				
Brought forward .. ..	48	1,899	182	1,947	37	20,227	21,340
<b>IV. AFFECTIONS OF THE CIRCULATORY SYSTEM.</b>							
87. Pericarditis .. ..	—	—	—	—	—	3	2
88. Acute Endocarditis or Myocarditis .. ..	—	11	2	11	1	53	94
89. Angina Pectoris .. ..	—	—	—	—	—	14	5
90. Other Diseases of the Heart :—	—	—	—	—	—	—	—
(a) Valvular :—	—	—	—	—	—	—	—
Mitral .. ..	1	23	7	24	—	89	131
Aortic .. ..	—	2	—	2	—	44	89
Tricuspid .. ..	—	—	—	—	—	4	4
Pulmonary .. ..	—	—	—	—	—	—	—
(b) Myocarditis .. ..	1	23	11	24	—	181	291
91. Diseases of the Arteries :—	—	—	—	—	—	—	—
(a) Aneurism .. ..	—	2	—	2	—	3	1
(b) Arterio-Sclerosis .. ..	—	10	—	10	—	401	376
(c) Other diseases .. ..	—	—	—	—	—	115	163
92. Embolism or Thrombosis (non-cerebral) .. ..	—	—	—	—	—	—	1
93. Diseases of the Veins :—	—	—	—	—	—	—	—
Hæmorrhoids .. ..	1	9	—	10	—	106	77
Varicose Veins .. ..	—	19	—	19	—	69	82
Phlebitis .. ..	—	1	—	1	—	14	37
94. Diseases of the Lymphatic System :—	—	—	—	—	—	—	—
Lymphangitis .. ..	—	5	—	5	—	136	92
Lymphadenitis Bubo (non-specific) .. ..	1	11	—	12	—	45	37
95. Hæmorrhage of undetermined cause .. ..	—	2	—	2	—	27	23
96. Other affections of the Circulatory System .. ..	—	2	—	2	—	31	36
<b>V. AFFECTIONS OF THE RESPIRATORY SYSTEM.</b>							
97. Diseases of the Nasal Passages :—	—	—	—	—	—	—	—
Adenoids .. ..	—	5	—	5	—	85	73
Polypus .. ..	—	—	—	—	—	8	9
Rhinitis .. ..	—	6	—	6	—	120	109
Coryza .. ..	—	5	—	5	—	960	572
98. Affections of the Larynx :—	—	—	—	—	—	—	—
Laryngitis .. ..	—	3	—	3	—	83	62
99. Bronchitis :—	—	—	—	—	—	—	—
(a) Acute .. ..	1	118	3	119	3	1,783	1,611
(b) Chronic .. ..	—	38	—	38	—	874	875
100. Broncho-Pneumonia .. ..	—	85	15	85	—	158	182
101. Pneumonia :—	—	—	—	—	—	—	—
(a) Lobar .. ..	5	103	17	108	2	135	87
(b) Unclassified .. ..	—	21	6	21	—	39	19
102. Pleurisy, Empyema .. ..	1	47	1	48	2	119	130
103. Congestion of the Lungs .. ..	—	12	3	12	—	17	7
104. Gangrene of the Lungs .. ..	—	—	—	—	—	1	2
105. Asthma .. ..	—	22	—	22	—	190	110
106. Pulmonary Emphysema .. ..	—	—	—	—	—	15	14
107. Other affections of the Lungs :—	—	—	—	—	—	—	—
Hydatid of Lungs .. ..	1	—	—	1	—	—	—
Pulmonary Spirochaetosis .. ..	—	3	—	3	—	3	2
<b>VI. DISEASES OF THE DIGESTIVE SYSTEM.</b>							
108. A.—Diseases of the Teeth or Gums :—	—	—	—	—	—	—	—
Caries, Pyorrhoea, etc. .. ..	1	4	—	5	—	2,281	1,890
B.—Other affections of the Mouth :—	—	—	—	—	—	—	—
Stomatitis .. ..	—	—	—	—	—	102	111
Glossitis, etc. .. ..	—	—	—	—	—	22	21
Carried forward .. ..	61	2,491	247	2,552	45	28,557	28,767



RETURN OF DISEASES AND DEATHS FOR THE YEAR 1938—*contd.*

Diseases	IN-PATIENTS					OUT-PATIENTS	
	Remaining in Hospital at end of 1937	Yearly Total		Total Cases treated	Remaining in Hospital at end of 1938	Male	Female
		Admis- sions	Deaths				
Brought forward .. .. .	61	2,491	247	2,552	45	28,557	28,767
VI. DISEASES OF THE DIGESTIVE SYSTEM— <i>continued.</i>							
109. Affections of the Pharynx or Tonsils :—							
Tonsillitis .. .. .	—	77	—	77	—	527	501
Pharyngitis .. .. .	—	1	—	1	—	203	158
110. Affections of the Oesophagus ..	—	—	—	—	—	4	1
111. A.—Ulcer of the Stomach ..	—	21	2	21	—	79	24
B.—Ulcer of the Duodenum ..	3	8	—	11	1	43	27
112. Other affections of the Stomach :—							
Gastritis .. .. .	—	68	—	68	—	1,320	1,762
Dyspepsia, etc. .. ..	—	28	—	28	—	1,065	1,676
113. Diarrhoea and Enteritis :—							
Under two years .. ..	—	25	2	25	—	712	629
114. Diarrhoea and Enteritis :—							
Two years and over .. ..	2	56	2	58	—	1,081	1,040
Colitis .. .. .	—	29	—	29	—	360	441
Ulceration .. .. .	—	—	—	—	—	14	17
114a. Sprue .. .. .	—	—	—	—	—	—	—
115. Ankylostomiasis .. .. .	—	—	—	—	—	—	—
116. Diseases due to Intestinal Parasites :							
(a) Cestoda (Taenia) .. ..	—	1	—	1	—	9	19
(b) Trematoda (Flukes) ..	—	—	—	—	—	5	5
(c) Nematoda (other than Ankylostoma) :—							
Ascaris .. .. .	—	1	—	1	—	81	92
Trichocephalus dispar ..	—	—	—	—	—	—	—
Trichina .. .. .	—	—	—	—	—	2	—
Dracunculus .. .. .	—	—	—	—	—	—	—
Strongylus .. .. .	—	—	—	—	—	14	23
Oxyuris .. .. .	—	3	—	3	—	59	93
(d) Coccidia .. .. .	—	—	—	—	—	—	—
(e) Other parasites .. ..	—	—	—	—	—	—	—
(f) Unclassified .. .. .	—	—	—	—	—	—	—
117. Appendicitis .. .. .	7	372	4	379	4	276	375
118. Hernia .. .. .	7	285	18	292	5	571	144
119. A.—Affections of the Anus Fistula, etc. .. .. .	1	26	—	27	—	57	32
B.—Other affections of the Intestines :—							
Enteroptosis .. .. .	—	16	2	16	1	23	41
Constipation .. .. .	—	63	—	63	—	782	982
120. Acute Yellow Atrophy of the Liver ..	—	1	1	1	—	5	12
121. Hydatid of the Liver .. ..	2	15	1	17	2	17	15
122. Cirrhosis of the Liver :—							
(a) Alcoholic .. .. .	—	2	1	2	—	16	32
(b) Other forms .. .. .	—	7	2	7	—	5	12
123. Biliary Calculus .. .. .	—	2	—	2	—	7	8
124. Other affections of the Liver :—							
Abscess .. .. .	1	—	—	1	—	4	7
Hepatitis .. .. .	1	9	—	10	—	115	127
Cholecystitis .. .. .	—	19	—	19	1	76	174
Jaundice .. .. .	1	13	2	14	—	57	40
125. Diseases of the Pancreas .. ..	—	3	1	3	—	2	4
126. Peritonitis (of unknown cause) ..	1	9	2	10	—	15	14
127. Other affections of the Digestive System .. .. .	—	—	—	—	—	7	25
Carried forward .. .. .	87	3,651	287	3,738	59	36,170	37,319

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1938—*contd.*

Diseases	IN-PATIENTS					OUT-PATIENTS	
	Remaining in Hospital at end of 1937	Yearly Total		Total Cases treated	Remaining in Hospital at end of 1938	Male	Female
Brought forward .. .. .	87	3,651	287	3,738	59	36,170	37,319
VII. DISEASES OF THE GENITO-URINARY SYSTEM (NON-VENEREAL).							
128. Acute Nephritis .. .. .	1	30	—	31	—	198	171
129. Chronic .. .. .	1	45	10	46	—	243	321
130. A.—Chyluria .. .. .	—	—	—	—	—	4	3
B.—Schistosomiasis .. .. .	—	—	—	—	—	—	—
131. Other affections of the Kidneys :—							
Pyelitis, etc. .. .. .	1	12	—	13	—	43	51
132. Urinary Calculus .. .. .	—	32	4	32	—	67	72
133. Diseases of the Bladder :—							
Cystitis .. .. .	1	29	3	30	3	88	103
134. Diseases of the Urethra :—							
(a) Stricture .. .. .	—	5	1	5	—	17	—
(b) Other .. .. .	1	1	—	2	—	24	8
135. Diseases of the Prostate :—							
Hypertrophy .. .. .	1	7	—	8	—	17	—
Prostatitis .. .. .	—	21	—	21	—	81	—
136. Diseases (non-Veneraeal) of the Ge- nital Organs of Man :—							
Epididymitis .. .. .	—	13	—	13	—	29	—
Orchitis .. .. .	—	10	—	10	—	46	—
Hydrocele .. .. .	—	18	1	18	—	53	—
Ulcer of Penis .. .. .	—	4	—	4	—	6	—
137. Cysts or other non-malignant Tumours of the Ovaries ..	—	14	—	14	—	—	66
138. Salpingitis :—							
Abscess of the Pelvis .. ..	2	58	—	60	2	—	199
139. Uterine Tumours (non-malignant)	—	24	—	24	—	—	105
140. Uterine Hæmorrhage (non-puer- peral) .. .. .	1	73	2	74	1	—	321
141. A.—Metritis .. .. .	1	74	—	75	—	—	375
B.—Other affections of the Female Genital Organs :—							
Displacements of Uterus ..	—	7	—	7	—	—	69
Amenorrhœa .. .. .	—	3	—	3	—	—	235
Dysmenorrhœa .. .. .	—	3	—	3	—	—	163
Leucorrhœa .. .. .	—	2	—	2	—	—	24
142. Diseases of the Breast (non-puer- peral :—							
Mastitis .. .. .	1	11	—	12	—	—	80
Abscess of Breast .. .. .	—	8	—	8	—	1	43
VIII. PUERPERAL STATE.							
143. A.—Normal Labour .. .. .	14	413	3	427	13	—	186
B.—Accidents of Pregnancy :—							
(a) Abortion .. .. .	—	177	3	177	1	—	110
(b) Ectopic Gestation .. ..	1	5	1	6	—	—	1
(c) Other accidents of Pregnancy	—	11	2	11	—	—	174
144. Puerperal Hæmorrhage .. ..	—	4	2	4	—	—	—
145. Other accidents of Parturition	—	58	3	58	2	—	37
146. Puerperal Septicæmia .. ..	1	16	3	17	—	—	20
147. Phlegmasia Dolens .. .. .	—	—	—	—	—	—	—
148. Puerperal Eclampsia .. .. .	—	1	1	1	—	—	—
149. Sequelæ of Labour .. .. .	—	—	—	—	—	—	2
150. Puerperal affections of the Breast	—	—	—	—	—	—	15
Carried forward .. .. .	114	4,840	326	4,954	81	37,087	40,273



RETURN OF DISEASES AND DEATHS FOR THE YEAR 1938—*contd.*

Diseases	IN-PATIENTS					OUT-PATIENTS	
	Remaining in Hospital at end of 1937	Yearly Total		Total Cases treated	Remaining in Hospital at end of 1938	Male	Female
		Admis- sions	Deaths				
Brought forward .. ..	114	4,840	326	4,954	81	37,087	40,273
<b>IX. AFFECTIONS OF THE SKIN AND CELLULAR TISSUES.</b>							
151. Gangrene .. ..	2	21	10	23	1	37	26
152. Boil :—							
Carbuncle .. ..	—	46	—	46	2	1,314	908
153. Abscess :—							
Whitlow .. ..	—	104	—	104	1	442	407
Cellulitis .. ..	—	168	2	168	5	751	502
154. A.—Tinea .. ..	—	3	—	3	—	52	51
B.—Scabies .. ..	—	15	1	15	—	1,206	1,056
155. Other Diseases of the Skin :—							
Erythema .. ..	—	4	—	4	—	211	254
Urticaria .. ..	—	3	—	3	—	99	114
Eczema .. ..	—	14	—	14	—	624	639
Herpes .. ..	—	1	—	1	—	121	90
Psoriasis .. ..	—	2	—	2	—	140	82
Elephantiasis .. ..	—	—	—	—	—	10	5
Myiasis .. ..	—	—	—	—	—	3	9
Chigoes .. ..	—	—	—	—	—	3	7
Cutaneous Leishmaniasis ..	—	2	—	2	—	1	1
Impetigo .. ..	—	1	—	1	—	146	131
<b>X. DISEASES OF BONES AND ORGANS OF LOCOMOTION (OTHER THAN TUBERCULOUS).</b>							
156. Diseases of Bones :—							
Osteitis .. ..	1	25	3	26	3	36	19
157. Diseases of Joints :—							
Arthritis .. ..	—	32	—	32	2	348	461
Synovitis .. ..	—	—	—	—	—	17	12
158. Other Diseases of Bones of Organs of Locomotion .. ..	1	13	—	14	2	195	149
<b>XI. MALFORMATIONS.</b>							
159. Malformations :—							
Hydrocephalus .. ..	—	—	—	—	—	1	2
Hypospadias .. ..	—	—	—	—	—	6	—
Spina Bifida, etc. .. ..	—	1	—	1	—	2	1
Other malformations .. ..	—	5	1	5	—	10	2
<b>XII. DISEASES OF INFANCY.</b>							
160. Congenital Debility .. ..	—	3	—	3	1	15	7
161. Premature Birth .. ..	—	1	—	1	—	—	2
162. Other affections of Infancy ..	—	—	—	—	—	11	5
163. Infant neglect (infants of three months or over) .. ..	—	—	—	—	—	5	8
<b>XIII. AFFECTIONS OF OLD AGE.</b>							
164. Senility :—							
Senile Dementia .. ..	—	—	—	—	—	91	143
<b>XIV. AFFECTIONS PRODUCED BY EXTERNAL CAUSES.</b>							
165. Suicide by Poisoning .. ..	—	1	—	1	—	1	—
166. Corrosive Poisoning (intentional) ..	—	2	—	2	—	2	—
167. Suicide by Gas Poisoning .. ..	—	—	—	—	—	—	—
168. Suicide by Hanging or Strangulation .. ..	—	—	—	—	—	—	2
169. Suicide by Drowning .. ..	—	—	—	—	—	—	—
170. Suicide by Firearms .. ..	—	—	—	—	—	—	—
171. Suicide by cutting or stabbing Instruments .. ..	—	—	—	—	—	—	—
172. Suicide by jumping from a height ..	—	—	—	—	—	—	—
173. Suicide by crushing .. ..	—	—	—	—	—	—	—
174. Other Suicides .. ..	—	—	—	—	—	—	—
Carried forward .. ..	118	5,307	343	5,425	98	42,987	45,368

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1938—*contd.*

Diseases	IN-PATIENTS					OUT-PATIENTS	
	Remaining in Hospital at end of 1937	Yearly Total		Total Cases treated	Remaining in Hospital at end of 1938	Male	Female
		Admis- sions	Deaths				
Brought forward .. ..	118	5,307	343	5,425	98	42,987	45,368
XIV. AFFECTIONS PRODUCED BY EXTERNAL CAUSES— <i>contd.</i>							
175. Food Poisoning :—							
Botulism .. ..	—	1	—	1	—	3	7
176. Attacks of poisonous animals :—							
Snake Bite .. ..	—	15	—	15	—	5	2
Insect Bite .. ..	—	3	—	3	—	16	16
177. Other accidental Poisonings ..	—	2	—	2	—	5	—
178. Burns (by Fire) .. ..	—	47	7	47	1	127	99
179. Burns (other than by Fire) ..	—	9	2	9	—	74	72
180. Suffocation (accidental) ..	—	2	—	2	—	2	—
181. Poisoning by Gas (accidental) ..	—	—	—	—	—	—	—
182. Drowning (accidental) ..	—	—	—	—	—	3	—
183. Wounds (by Firearms, war excepted)	1	9	—	10	—	6	4
184. Wounds (incised or penetrating)	1	194	1	195	2	1,108	373
185. Wounds (by fall) .. ..	—	72	—	72	—	1,106	466
186. Wounds (in Mines or Quarries) ..	—	—	—	—	—	16	7
187. Wounds (by Machinery) ..	—	1	—	1	—	13	20
188. Wounds (crushing, <i>e.g.</i> railway acci- dents, etc.) .. ..	—	1	1	1	—	26	4
189. Injuries inflicted by Animals, Bites, Kicks, etc. .. ..	—	6	—	6	—	98	60
190. Wounds inflicted on Active Service	—	1	—	1	—	—	—
191. Executions of civilians by belli- gerents .. ..	—	—	—	—	—	—	—
192. A.—Over fatigue .. ..	—	—	—	—	—	10	5
B.—Hunger or Thirst .. ..	—	—	—	—	—	10	5
193. Exposure to Cold, Frost bite, etc.	—	1	—	1	—	136	63
194. Exposure to Heat :—							
Heatstroke .. ..	—	—	—	—	—	—	—
Sunstroke .. ..	—	3	1	3	—	4	1
195. Lightning Stroke .. ..	—	—	—	—	—	—	—
196. Electric Shock .. ..	—	—	—	—	—	1	—
197. Murder by Firearms .. ..	—	—	—	—	—	1	—
198. Murder by cutting or stabbing Instruments .. ..	—	3	3	3	—	3	—
199. Murder by other means .. ..	—	—	—	—	—	—	—
200. Infanticide (Murder of an infant under one year) .. ..	—	—	—	—	—	2	3
201. A.—Dislocation .. ..	—	30	1	30	2	31	33
B.—Sprain .. ..	—	5	—	5	—	50	20
C.—Fracture .. ..	11	303	10	314	14	159	77
202. Other external Injuries .. ..	8	326	1	334	3	941	567
203. Deaths by Violence of unknown cause .. ..	—	—	—	—	—	—	—
XV. ILL-DEFINED DISEASES.							
204. Sudden Death (cause unknown) ..	—	—	—	—	—	2	1
205. A.—Diseases not already specified or ill-defined :—							
Ascites .. ..	—	18	2	18	—	49	60
Oedema .. ..	—	—	—	—	—	15	30
Asthenia .. ..	1	19	—	20	—	329	543
Shock .. ..	—	1	—	1	—	2	—
Hyperpyrexia .. ..	—	1	—	1	—	36	31
B.—Malingering .. ..	—	—	—	—	—	29	8
XVI. DISEASES, THE TOTAL OF WHICH HAVE NOT CAUSED TEN DEATHS							
TOTAL .. ..	140	6,380	372	6,520	120	47,463	47,987



REPORT OF THE COMMISSIONER OF THE GENERAL LAND OFFICE FOR THE YEAR 1881-82

No.	Description of Land	1881-82			Total	Balance	Total
		Acres	Perches	Sq. Yds.			
1	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...
3	...	...	...	...	...	...	...
4	...	...	...	...	...	...	...
5	...	...	...	...	...	...	...
6	...	...	...	...	...	...	...
7	...	...	...	...	...	...	...
8	...	...	...	...	...	...	...
9	...	...	...	...	...	...	...
10	...	...	...	...	...	...	...
11	...	...	...	...	...	...	...
12	...	...	...	...	...	...	...
13	...	...	...	...	...	...	...
14	...	...	...	...	...	...	...
15	...	...	...	...	...	...	...
16	...	...	...	...	...	...	...
17	...	...	...	...	...	...	...
18	...	...	...	...	...	...	...
19	...	...	...	...	...	...	...
20	...	...	...	...	...	...	...
21	...	...	...	...	...	...	...
22	...	...	...	...	...	...	...
23	...	...	...	...	...	...	...
24	...	...	...	...	...	...	...
25	...	...	...	...	...	...	...
26	...	...	...	...	...	...	...
27	...	...	...	...	...	...	...
28	...	...	...	...	...	...	...
29	...	...	...	...	...	...	...
30	...	...	...	...	...	...	...
31	...	...	...	...	...	...	...
32	...	...	...	...	...	...	...
33	...	...	...	...	...	...	...
34	...	...	...	...	...	...	...
35	...	...	...	...	...	...	...
36	...	...	...	...	...	...	...
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99	...	...	...	...	...	...	...
100	...	...	...	...	...	...	...





